THE ART BULLETIN

A QUARTERLY PUBLISHED BY
THE COLLEGE ART ASSOCIATION OF AMERICA

MARCH 1944
VOLUME XXVI
NUMBER ONE

EDITORIAL BOARD

Subscriptions for the ART BULLETIN should be sent to the College Art Association of America at 625 Madison Avenue, New York 22, N. Y. The price of the ART BULLETIN is three dollars a number, ten dollars a year.

Articles and monographs for the new Supplement series should be addressed to the Editor of the ART BULLETIN, The Institute for Advanced Study, Princeton, N. J.; books for review should be addressed to the Editor for Book Reviews, Yale University, New Haven, Conn. Before submitting manuscripts, authors are requested to consult the "Notes for Contributors" printed at the end of the March issue.

Entered as second-class matter at the Post Office at New York, N. Y., Oct. 24, 1925, under the Act of March 3, 1879; additional entry at the Post Office at Brattleboro, Vermont, July 23, 1943.

THE ART BULLETIN

MARCH 1944

The paper shortage created by the war has led the editors of the ART BULLETIN to adopt with this issue, and for the duration, a double-column format with smaller type than has been used in the past. Without the saving of paper effected by this change we should be unable both to maintain the usual volume of material in the ART BULLETIN and to publish occasional Supplements in the new series of monographs sponsored by the Archaeological Institute of America and the College Art Association.

BUFFINGTON AND THE INVENTION OF THE SKYSCRAPER

The long-standing controversy concerning Buffington's part in the invention of the skyscraper is reopened in the two articles in this issue by Mr. Tselos and Mrs. Christison. As a background for the general reader, the following introduction written by Professor Hugh Morrison of Dartmouth College summarizes the previous history of the Buffington claim. Ed.

BUFFINGTON's fame in the history of American architecture has been due to his oft-asserted claim that he was the "inventor of the skyscraper." It is curious that during the sixty-odd years since the skyscraper was invented no one has been able to prove, with reasonable finality, the truth or falsity of Buffington's claim. A question of prime historical interest, concerning an event that has had incalculable practical import and that occurred in an era recorded in millions of inches of printer's ink, has remained unsettled for nearly a lifetime. Finally new material has been found and new light has been shed. The two articles in this issue of the ART BULLETIN make a thorough analysis of the Buffington claim and, in my opinion, they resolve the question conclusively.

It may be appropriate to introduce them by a brief account of Buffington's life, and a history of his part in the skyscraper controversy, so far as it has been known prior to these recent investigations. The story is at times an intricate one.

Leroy Sunderland Buffington was born in Cincinnati on September 22, 1847. He studied architecture and engineering at the University of Cincinnati, graduating in 1869. In 1871 he began to practice architecture in St. Paul, and two years later opened a Minneapolis office. Buffington had a flourishing practice in the seventies and early eighties. He occupied large offices, and at one time employed thirty draftsmen. Among the buildings he designed were the old state capitols at St. Paul, Bismarck, and Charleston, W. Va., several of the University of Minnesota buildings, the old Union Station at St. Paul, and the Minneapolis Post Office. He had an extensive practice in hotels — including two as far west as Yellowstone Park — and he did several churches, auditoriums, schools, apartment-houses, and residences. He became a Fellow of the American Institute of Architects. Buffington remained in active practice until the last year of his life. He died in Minneapolis on February 15, 1931.

It is now generally acknowledged that the first building which actually incorporated the essential principle of skyscraper construction was the Home Insurance Building in Chicago, by William LeBaron Jenney. It was designed in May, 1883, and built in 1884–85. Buffington never claimed to have *built* the first skyscraper, but he did argue, with considerable effect, that he invented the principle before Jenney, or anyone else. The conception first came to him, according to his own account, in the winter of 1880–81. The credibility of his claim, and the evidence recently brought forth to support it, are thoroughly analyzed in the following articles, which we need not anticipate.

The subsequent history of the claim, however, may be surveyed to bring us up to date. As is well known, Buffington applied for a patent on skyscraper construction on November 14, 1887, and the patent was granted on May 22, 1888. He published an article in the *Northwestern Architect* of March, 1888, clearly setting forth the advantages of the new type of construction. This is the first published account that demonstrates a complete grasp of the essential principle of the skyscraper and states clearly its manifold structural and economic advantages over the old-fashioned masonry construction. The article was reprinted in pamphlet form and distributed widely to architects and builders all over the country. The latter half of 1888 saw his article and his 28-story skyscraper project reprinted in several newspapers and architectural magazines. A good many of them ridiculed Buffington as a crank and a visionary; some looked on the new-fangled invention with mingled tolerance and skepticism.

Typical of the reaction, perhaps, was the garbled enthusiasm of an article entitled "An Architect's Dream" published in the *Building Record* (N.Y.) in 1888. "An architect of Minneapolis, Minn., who is neither a crank nor an ignoramus, proposes to go New York eight stories better, and has actually drawn working plans for a twenty-eight story office building. His principle of construction is peculiar. It is said that some of his devices are patented and his plans copyrighted. As nearly as we can gather, each story is supported independently, and is a continuous skeleton of metal. By this marvellous plan he expects that any one story will be built to stand alone, and by this means the weight of the upper sections are carried on shelves to support the skeleton, thus doing away with thick walls, as from twelve to fifteen inches is all that is needed on any story. As in all such schemes, the details are not for the public, this enterprising individual is regarded by his fellow citizens as an architect of no ordinary calibre. . . . The West takes the persimmons, and no mistake."

The *New York Daily Graphic* published a full account of the 28-story project; *Engineering* (N.Y.) had a brief commendatory paragraph; the *Architectural News* sneered, and the *New York Sun* was lenient, conceding that "the cranks of this generation are sometimes the

prophets of the next." One thing seems certain: the authors of all these articles published in 1888 had never heard of skyscraper construction before. Buffington was the first successfully to publicize it.

On November 18, 1892, Buffington and his brother, A. L. Buffington, and E. H. Steele signed articles of incorporation forming "Buffington's Iron Building Company," capitalized at $1,000,000. This was ostensibly for the manufacture of all parts needed in Buffington's type of construction; in reality it was to finance lawsuits for the infringement of his patent. A pamphlet announcing the corporation, published in 1893, includes facsimiles of the patent papers, and after a laudatory preface concerning Mr. Buffington's contribution to the art of building concludes as follows: "We are now prepared to furnish licenses in this and foreign countries for a fair consideration. Correspondence solicited. Yours respectfully, BUFFINGTON'S IRON BUILDING COMPANY."

This step occasioned another flurry of newspaper publicity. Buffington proposed to collect 5 per cent on the cost of buildings erected under his patent. The announcement was greeted with mingled dismay and ridicule. The *American Architect* "had not supposed that he would seriously attack those who unmindful or ignorant of his monopoly have erected such buildings," while the *New York Tribune* jibed: "Mr. Buffington is on the warpath . . . and it is no small game by any manner of means, that he is after. Mr. Buffington is an architect with ideas — a large collection of long ideas. . . . It is plain that [he] has taken a large contract, but in his survey of the future he is courting damages amounting to hundreds of millions." The *Chicago Tribune* published an interview with Buffington, and mentioned that he had had a patent attorney in Washington for three months during the preceding winter (1892–93) who reported that the Buffington patents were inviolable.

The first actual suit for infringement of the patent was filed on December 10, 1892. This has been reported on in Upjohn's article. During the proceedings mention was made of an important article by Jenney published in the *Sanitary Engineer* of 1885, but apparently it was not realized that Jenney was there describing the principles of skyscraper construction and Jenney's place as the builder of the first skyscraper was not discussed in the trial. On the other hand, Buffington lost the suit because of prior application of the idea in various earlier patents, none of which were really germane to the question. In effect, the court made the right decision for the wrong reason. In any event, various subsequent suits were also lost. Buffington's Iron Building Company spent some $30,000 in fruitless litigation.

After the failure of his claim, Buffington seems to have subsided. No further references in print are made to it until the *American Architect* in June, 1907, carried an editorial article stating that the American Institute of Architects had made an investigation of claimants to skyscraper honors, and that it had awarded the palm to Jenney as against Bradford L. Gilbert (Tower Building, New York, 1889) or Buffington. This article elicited, the following month, the interesting letter by Fitzpatrick quoted in Mr. Tselos' article.

From this time, the controversy lapsed, or at least became quiescent, for more than twenty years. Buffington doubtless made verbal claims, to his friends and associates, but if he did, nothing convincing ever came of them. It is noteworthy that during all these long years, Buffington evidently considered his own unsupported word as sufficient evidence of his priority in the invention of the skyscraper, and failed to submit for the consideration of impartial historians any documentary evidence that might have proved his case. At any rate, the "modern" history of the Buffington claim, if so we may denote the period of recent investigations, evidently began as late as 1929.

On January 29 of that year Professor Frederick M. Mann, of the College of Engineering and Architecture at the University of Minnesota, published a letter to the editor of the *Minneapolis Journal*, supporting Buffington's claim. Professor Mann had come to know Buffington during his last years, and was persuaded of the validity of his claim, though as Professor Mann later pointed out, he had not pursued the investigation in any exhaustive or scientific way. Perhaps as a result of this renewed discussion, the *St. Louis Post-Dispatch* published on May 5, 1929, an illustrated feature article on Buffington which remains today the most complete published account of his life and work, apart from the extensive literature dealing specifically with the skyscraper question.

The first serious and scholarly analysis of the Buffington claim was Upjohn's admirable article in the ART BULLETIN, in March, 1935. It is noteworthy that here, for the first time, documentary evidence, in the way of drawings and sketches, appears on the scene. Buffington's *Memories*, written during the last years of his life, also was made available. Since then, the drawings have been donated to the University of Minnesota Library, and although the original of the *Memories* remains in the possession of Miss Ella Buffington, an edited and annotated copy, prepared by Mrs. Christison, is in the University Library.

For the first time, the complete documentary material is available for proper study. Lacking positive external evidence, the long-standing Buffington controversy can be resolved only by the internal evidence in these documents. Mrs. Christison and Mr. Tselos, working independently, investigated them. The two studies supplement and confirm one another on all major points, and taken together, I believe, resolve the Buffington controversy conclusively.

THE ENIGMA OF BUFFINGTON'S SKYSCRAPER

DIMITRIS TSELOS

Two questions have persisted in my mind since I was introduced to the problem of the skyscraper:[1] first, why had Buffington never built a skyscraper if, as has been reported, he had conceived its principles in 1880 — earlier than anyone else; second, why had no other architect in America discovered the germ of skyscraper construction in the published lectures of Viollet-le-Duc, as Buffington is said to have done as early as 1880?[2]

Recently, in revising my lecture notes on the origin of the skyscraper, I consulted the now famous passage in the *Lectures* of Viollet-le-Duc. This I found in the two-volume American edition in the Avery Library of Columbia University.[3] Unconsciously I opened the second volume to the title page. My eyes were immediately attracted by a calligraphic inscription in the upper right hand corner: "M. Schuyler, Oct. 1881." I concluded that the signature was that of Montgomery Schuyler, the leading American architectural critic of his time, and the date the conventional indication of the time the book was acquired. This discovery immediately raised the question of why a critic, whose life-line, so to speak, consists of books, had acquired his copy a whole year after Buffington, a member of a profession not normally addicted to book reading. The title page indicated that the book had been published in 1881. One would find it hard to explain the presence of the book in Buffington's hands in 1880. Consequently I looked for more precise information in publishers' catalogues. The evidence uncovered in the *Publishers' Trade List Annual* and the *Publishers' Weekly* was conclusive on one point, namely, that the book was not published until the autumn of 1881 when Schuyler acquired his copy.[4]

A discrepancy of one year in Buffington's chronology would not have seemed so crucial if it had not recalled to my attention his drawing dated 1882 showing a skeleton with I-beam grillage foundations and never satisfactorily explained by Upjohn, who was the first to make an extended study of Buffington's documents connected with the skyscraper.[5] A careful rereading of Upjohn's article in the light of the anachronism just noted and of the famous passage in Viollet-le-Duc, quoted below, convinced me that

NOTE. The illustrations for this article and the succeeding article by Mrs. J. R. Christison have been gathered together and placed between the two. Ed.

1. The present study was practically complete when I learned through the courtesy of Professor E. M. Upjohn that Buffington's drawings could be examined at the University of Minnesota. Upon arrival there I was informed by Mrs. J. R. Christison that she had reached substantially the same conclusions as my own through her annotation of Buffington's *Memories* and the examination of his drawings. In order not to infringe upon her discoveries I limited my brief study of the drawings to their connection with those problems which I had solved from material already published. I had no access to the manuscript of Buffington's *Memories*.

I should like to make the following acknowledgments: To Mrs. Christison, for permission to see the Buffington collection and for the photographs of the drawings dealing with the skyscraper problem; for assistance in arranging to see the Buffington Collection of the University of Minnesota, to Professors Frank K. Walter, Librarian, Harold Russell, Reference Librarian, Lawrence Schmeckebier, Head of the Fine Arts Department, and Roy Jones, Dean of the School of Architecture; to Professors Henry-Russell Hitchcock and Hugh Morrison for helpful suggestions.

2. Arthur Woltersdorf, "The Father of the Skeleton Frame Building," *Western Architect*, XXXIII, 1924, pp. 21–23; Museum of Modern Art, *Early Modern Architecture, Chicago, 1870–1910* (Catalogue of an Exhibition held at the Museum in 1933), p. 11; E. M. Upjohn, "Buffington and the Skyscraper," ART BULLETIN, XVII, 1935, pp. 50, 55.

3. The two volumes were published separately by Osgood and Company of Boston: Vol. I entitled *Discourses on Architecture* (trans. Henry van Brunt) in 1875; Vol. II entitled *Lectures on Architecture* (trans. Benjamin Bucknail) in 1881.

4. *Publishers' Trade List Annual*, New York, 1881. It includes the "Autumn Catalogue, 1881" of James R. Osgood in which the book is announced for the first time as a new publication. The *Annual* also summarizes the listings of the *Publishers' Weekly Record of New Books* which covers the period from July 1881 to June 1882 and includes the *Lectures* as of 1881. The book is not included in the trade publications for the previous year.

Schuyler's consistency in acquiring his books promptly upon publication is confirmed by his signature and the date "November, 1875" on the title page of the first volume. The catalogue of James R. Osgood and Co., incorporated in the *Publishers' Trade List Annual* for 1875, announces volume I as one of its Autumn publications under the date "October, 1875."

5. *Op. cit.*, pp. 58, 61, 66. Upjohn suspected the apparent anachronism of the developed grillage footing signed and dated *L.S.B.–82* but he closed his discussion thus: "That initials and date are here added later is the safer, though by no means certain hypothesis." Even if Upjohn had rejected it unconditionally, the signature and the date would point accusingly at Buffington.

the claims of Buffington must be reexamined completely once more in order to assign credit where it is due. The problem, of course, is to determine whether Buffington conceived the principles of skeleton construction before work was actually begun on the Home Insurance Building (1883–85) by Jenney in Chicago, generally considered to have been the first to incorporate the essential principles of such construction in a tall office building.[6] The closely related question of determining the place of Buffington in the history of the skyscraper follows from the first and will be dealt with in due course.

In a portion of chapter IX of Buffington's *Memories*,[7] published by Upjohn, there is the following account of his discovery of the passage in Viollet-le-Duc which supposedly gave him the basic idea:[8]

> It was in the winter of the years 1880 and 1881 that there came to my office from the publisher two volumes of a translation of Viollet-le-Duc's discourses on Architecture and when my team came for me that evening I took these books home.
>
> It was several nights before I could look at them, for I was very busy throughout the day, and in the evening I would often drive with my family to rest and ponder over my daily business, so when I picked them [up] and glanced through them, as is my habit before I start to read any book of real merit, I studied the illustrations, first in one and then in the other volume, and stopped, by intuition, luck or mere chance, on page 128, Volume 2, for right there before me was the word IRON[9] staring me in the face and I read:
>
> "A practical architect might not unnaturally conceive the idea of erecting a vast edifice whose frame should be entirely of iron, and clothing that frame, preserving it by means of a casing of stone."
>
> This sentence seemed most remarkable, so I laid the book down and thought of this large building, clothed with masonry. What could it mean? again I took up this volume and further along I read:
>
> "But it cannot be too often repeated, Iron should be left independent. It cannot be allied to masonry."
>
> Here I was back in the same hole I came out of. I could conceive very clearly of a tower or a bridge pier of iron, but the construction of an iron building was entirely different. I had to deal with many windows and doors, the elevator system and stairs, and the architecture on the exterior. While it all seems very clear now, it certainly was a complicated problem then.
>
> The lot of an architect who had to use unseasoned lumber and poor brick was not so rosy as today, when he has steel columns and beams, but here was a chance to find something better in building, and I went at it with a will; and many nights and Sundays at home with other work forgotten, I sat in my library and puzzled and studied over the vast edifice. I looked through all the data books of the iron and steel rolling mill manufacturers, and through all the handbooks of the architects and engineers, and through the Public Library and other sources of information.
>
> I then had a search made in the United States Patent Office and in all foreign countries for any patent, but found nothing pertaining to the supporting shelf or braced skeleton construction of metal as I have shown.
>
> A building whose frame should be of iron clothed with masonry was the problem I set myself to solve. This meant the front wall, the side walls, the rear wall, and the interior, a skeleton of metal. A skeleton is the principle [sic] part that supports the rest. Why not use a shelf fastened to the skeleton to carry the masonry? This was the final line along which my reason led me. I made many sketches showing various constructural designs for this building, and the studies, collected after so many years seem a waste of time on so simple an idea. So this and the next winter passed.

The foregoing account seems a reasonable explanation of the "invention" but the excerpts from Viollet-le-Duc have another meaning in their original context. Therefore the complete reproduction of the original paragraph and the accompanying footnote becomes necessary:

> Iron possesses very useful properties and we should make it our object to utilize and manifest these properties, not to disguise them. A practical architect might not unnaturally conceive the idea of erecting a vast edifice whose frame would be entirely of iron and clothing that frame — preserving it — by means of a casing of stone. By means of iron the thrusts of vaulting can be almost entirely counteracted and considerable strength can be given to slight supports. But it cannot be too often repeated: iron should be left independent; it cannot be allied with masonry in large buildings. It possesses properties special to itself in point of resistance, elasticity, and expansion, and which are contrary to the very nature of masonry. Employed as a support, cast-iron is rigid and incompressible, while masonry, consisting of layers, always sinks a little through drying of the mortar which fills the joints. Hence a wall built behind a cast iron column will sink somewhat while the column will not yield.[10]

The footnote at the bottom of the page was intended to illustrate the meaning of a "vast edifice":

> This idea is certainly dominant in the construction of the new church of St. Augustine in Paris. It only wanted working out to be frankly accepted in all its consequences. If the architect of that edifice had taken advantage of the method presented by some of the medieval buildings which exemplify an analogous principle of structure, he would have realized effects more satis-

6. There is good reason to believe that the principle of carrying the enclosing walls upon metal beams was used before the Home Insurance Building, but this structure seems to have been the first to apply it more extensively and in more integrated fashion in a tall building. In any case the question of priority in connection with the Buffington claim hinges upon the Insurance Building. For evidence of the earlier use of the essential principles of skeleton construction cf. note 50; also Roger Hale Newton, "New Evidence on the Evolution of the Skyscraper," *Art Quarterly*, IV, 1941, pp. 56–70; Editorial, *American Architect*, No. 1643, June 22, 1907, pp. 237 ff.

7. This is the title given by Buffington to his written reminiscences, not *Memoirs*, as reported by Upjohn, *loc. cit.* I owe this information to Mrs. J. R. Christison, who is familiar with the manuscript.

8. Upjohn, *op. cit.*, pp. 55–56.

9. The word "iron" in the *Lectures* is not in capitals.

10. *Lectures*, p. 128.

factory because they would have been more in accordance with the means adopted. He would also have somewhat lessened the cost of the building — a consideration never to be despised. In any case, however, it exhibits a step in advance — a hesitating step, it is true, but one which in the present condition of our art, deserves to be noted as a symptom of returning independence.

It seems clear from the foregoing quotations that Viollet-le-Duc was not discussing a tall stratified building but one in which the enclosed space was large and continuous. That Buffington interpreted the discussion to mean a tall commercial building with a skeleton and accordingly conceived such a building with its skeleton braced, completely clothed, and equipped with a shelf to carry its outer cloak, reveals a strange direction of human imagination. But let us attribute the results to those bizarre situations where the misreading of a document germinates a sound, although only a tangential idea, and proceed with the examination of other aspects of the problem.

In the account quoted from the *Memories*, Buffington makes no references to specific drawings which might have proceeded from the "studies" he mentions. There are, however, three projects which correspond approximately to the brief description given in chapter XIV of the *Memories:* "My cloudscraper is 1320 feet high, designed in 1882. My skyscraper is 600 feet high, designed in 1882. My twenty-eight story building, including the slanting roof, is 425 feet high, designed in 1881"[11] (cf. Figs. 1, 3).

At first reading this description appears coherent but soon its internal contradictions emerge. The text begins logically and properly with the most fantastic of Buffington's "dreams," the 1320-foot "cloudscraper," then passes to the 600-foot "skyscraper" and ends with the 28-story 425-foot building — the most practical of all. But this order is contradicted by that of the dates, for the first two projects are dated 1882, whereas the third is dated 1881. The contradiction in the order is emphasized by the fact that the dates in the typewritten text are inscribed in ink and therefore probably were added later.[12]

These anomalies are not clarified by any closer comparison between the text and the drawings. The text describes the tallest building as of 1320 feet but in the drawings it is inscribed as of 1200 feet and 100 stories high. The 600-foot building of the text has in the drawing the additional label of "50 stories." The third drawing, however, gives no measurements but the text describes it as of twenty-eight stories and 425 feet high. The accuracy of the two latter measurements should be doubted. Of all the drawings in the Buffington collection which deal with the skyscraper only some of those prepared between 1886 and 1888 show clearly twenty-eight stories.[13] The term "twenty-eight story" seems therefore anachronistically applied to this project. The 425-foot height seems even more inappropriate, for if it is divided by the number of the stories attributed to the building the resultant 15-foot height per story is extravagant even in comparison with the 100- and the 50-story projects which average only twelve feet per story. This extravagance might be explained by the theory of its being, as Upjohn believes, the earliest design in the series and therefore the most fantastic.[14] But such an interpretation seems unwarranted for more than one reason. In a normal process of ideation, especially in architecture the objectives of which are usually utilitarian, one would begin with the most fantastic and proceed to the most practical design. Buffington was probably not an exception to the rule, for that is how he remembered the order of their evolution and accordingly summarized it in the account in question. It was not until the dates in the *Memories* were added in ink that a contradictory sequence was effected.

Some light can be thrown on this aspect of the problem by referring to that part of the account given in chapter IX of the *Memories* which follows the portion already quoted. In the last sentence of that quotation Buffington wrote, "So this and the next winter passed." Since he could not have read Viollet-le-Duc in the winter of 1880–81, he must have meant that the seasons of 1881–82 and 1882–83 passed. The account is resumed with his activity during the following winter:

> In the winter of 1883–84 I took up the design of the exterior, as a working basis had to be reached before I could go any further. Finally, I decided to take a column for my model, a solid base, a plain shaft with upward lines like volutes [sic], and a beautiful cap and skyline to finish. This is the design of my 28-story building. So pleased was I that I designed many others; some with more stories and others with less, but none seemed so appropriate for display as this one. My friends advised me to get it patented, so I consulted an attorney, laid the matter before him and drew up the first application; but I was very busy and my time was taken up continually and another year passed.[15]

From this account we should conclude that the external appearance of his projected skyscraper was considered for

11. Upjohn, *op. cit.*, p. 55.

12. Noted by Upjohn, *loc. cit.*

13. The reference to a "slanting-roof" is as anachronistic as that to a "28-story" building. The Neo-Romanesque project of "1881" has clearly a domed roof. What seems to be the earliest design with a sloping roof is one of only 25 stories, signed and dated *L.S.B.–83* (Fig. 6).

14. *Op. cit.*, p. 57. Mrs. Christison has adduced another passage in the *Memories* which refers to an early "28-story" building design which had 28 stories below the roof-line and 7 more stories in the sloping roof. This normalizes the size of the individual stories in a 425-foot building but there is no drawing that corresponds to such a project, except the very late ones related to the patent (Figs. 10, 12).

15. Upjohn, ART BULLETIN, XVII, 1935, p. 56. Mrs. Christison has noted in her accompanying article that the date "1883–84" was altered to read "1881–82" and that Upjohn chose the former. This information is interesting but does not, I think, alter the core of the problem.

the first time in the winter of 1883–84 and that the scheme which he decided upon was one modelled after a column. This accords perfectly with the columnar drawings in Figs. 1, 2.[16] They show not only the rather vague stages of the 600-foot skyscraper and of the 1200-foot cloudscraper, but also the results of that final decision to develop the larger one because of its fluted shaft and "skyline," "so appropriate for display." It would seem, therefore, that the 425-foot building, which is not mentioned in this account and whose interpolated date in the brief account of chapter XIV is inconsistent with the chronological order of his activities as indicated in the text, was made later than the columnar designs.

Let us follow the problem of the columnar project a little further. It is evident that either the dates on the drawings are wrong or that Buffington intended to write that it was in the winter of 1882–83 that he took up the question of the exterior and developed the columnar project. Although the latter alternative is unlikely, since Buffington was wont to err to his own advantage,[17] we may assume its likelihood for the time being, since it is supported by a dated drawing entitled *Elevation of Iron Construction* (Fig. 2). In addition to the larger scheme which gives the drawing its title, the sheet contains a fragmentary section of a roof, a stepped crown for a columnar building and an incomplete diminutive sketch of a radial plan. Upjohn did not recognize the affinity between these sketches and the columnar scheme, for he wrote: "It is likely these projects were never carried further. Even to one with Buffington's imagination the scheme must have seemed chimerical then."[18] There is every reason to believe, however, that these sketches proceeded logically from the favorite columnar idea. The fragmentary radial plan is virtually identical with that on the sheet containing the 100- and 50-story projects and may well have been done at the same time. Similarly, the stepped crown seems to be the logical culmination of the roof scheme shown in the three complete versions of the 100-story scheme.[19] The small free-hand sketch of the skeleton with its legible labels is a special study of the construction of the lowest and largest stratum of the stepped roof which is also the cornice of the building. The larger and more careful drawing, showing the braced skeleton with shelves and isolated foundations, says even more clearly, through its narrow intercolumniations which enclose each bay, that it was intended for the columnar scheme, the piers corresponding to the arrises and the windows to the flutes.

16. Two other drawings of the 100-story project with stepped top exist in the Buffington collection on paper identical with that used for the other columnar projects, and thus confirm the first preference of Buffington for that scheme, as recorded in his *Memories*.

17. See Upjohn, *op. cit.*, p. 55.

18. *Op. cit.*, p. 58.

19. See note 16.

Having gone so far with the columnar project, Buffington must have seen that he was heading into an attractive but blind alley and decided to change direction. I believe that the change led to the Neo-Romanesque project which bears the date "1881" (Fig. 3). The similarity between its domed roof and that of the 50-story project as well as its greater practicality suggest such a transition. But when was the change made? One cannot accept its date as authentic, since it is contradicted by the logical priority of the columnar drawings. Furthermore, its stylistic unity and orderliness are chronologically incompatible with the eclectic confusion of West Hotel, which was designed in 1881 (Fig. 5). It follows without question, therefore, that Buffington borrowed the Neo-Romanesque motif and that the real date of the design should be determined by locating its model.

Except for the domed roof, which relates it to the 50-story skyscraper in Fig. 1, the Neo-Romanesque scheme has certain elements which appear consistently in all projects which followed it and culminate in the project of 1888 (Figs. 3, 6, 10, 12, 14). These are the corner towers topped with small turrets, the double zone of openings below the roofline, the tall embracing arches and the horizontal bands accenting the upper and lower divisions of the structure. These are special "style-marks" which were evolved by Richardson in his various works. The horizontal colored banding which appears in structures before 1880 cannot serve as a criterion of chronology. But the essentials of the remaining features appear for the first time together in the tower of the Allegheny County Court House which was not completed till 1887 but which had been published in 1884 (Fig. 4).[20] In the absence of any record that Buffington had his design published before this date or that he had shown it to Richardson, one is inclined to believe that the motif was borrowed from Richardson.[21] The special achievement of Richardson in the field of tower design makes unlikely the possibility of an earlier, parallel and independent invention of the same scheme by Buffington. The earliest that Buffington could have executed the project, then, would be 1884. This date also would fit the chronology of the columnar schemes, as revealed in chapter IX of the *Memories*, and accords with our conclusions that the Neo-Romanesque project followed the abandonment of the columnar "cloudscraper." There are, however,

20. This publication was in the form of an illustrated *Description*, issued privately and probably of very limited circulation.

21. Henry-Russell Hitchcock, who notes the *Description* in his *Architecture of H. H. Richardson and his Times*, New York, 1936, p. 305, and in his *American Architectural Books*, Middletown, Conn., 1938–39, p. R.4, told me in person that he doubted that anyone outside of Boston and New York had knowledge of this publication at the time. In the absence of more definite information on the question we can assume the possibility, for the time being, that Buffington knew of it.

a number of objections to such conclusions which must be met before we can proceed any further.

First of all, the acceptance of the winter of 1883–84 as the date of the columnar drawings implies the rejection of the date on the drawings of those projects which is given as 1882. In view of the false date on the drawing of the Neo-Romanesque project, one would be justified in ignoring the dates of the other drawings also and in following the chronology of the *Memories* concerning the development of the columnar projects. But the *Memories* is hardly more reliable if one is to judge from the tampering with the dates and the account of the "discovery" of Viollet-le-Duc. The principal obstacle is the drawing entitled *Elevation of Iron Construction* made upon paper whose manufacture in 1879 is recorded in its watermark and, according to Upjohn, who examined many of Buffington's drawings, the date of the drawings never lags more than three years after the date of the watermark.[22] The value of the watermark for this problem, however, is doubtful because the drawing is the only watermarked example in the skyscraper series. Moreover, the nature and appearance of the papers upon which the 50-story, the 100-story and the Neo-Romanesque projects are drawn are identical and confirm the stylistic affinity between the 50-story and the Neo-Romanesque schemes. Since the latter cannot be earlier than 1884, the columnar projects must be dated about 1884. From this follows the conclusion that the *Elevation of Iron Construction*, which shows advanced stages of the columnar scheme, could not have been made long before that approximate date, despite the testimony of the dated watermark. The provisional date, about 1884, may, therefore, be sufficient until after the examination of the other projects which follow the Neo-Romanesque scheme.

Since the dates of the drawings examined so far were found to be unreliable, we can simplify our procedure by ignoring the dates of the rest unless they are supported by external evidence.

The first serious elaboration of the Richardsonian tower is found in a combination drawing which shows a 25-story building in half-elevation, half-section, a ground plan and two typical floor plans (Fig. 6). The building obviously was intended to be a completely isolated structure occupying a whole block and entered through four equally important entrances. In this respect, it follows the conception of the earlier "425-foot" scheme which seems similarly isolated (Fig. 3). The real date of the drawing may be established by the testimony of the *Memories* and by external evidence. At the end of the paragraph containing the report on the winter season of 1883–84, Buffington wrote that his friends advised him "to get it [the column skyscraper] patented . . ." but his time was "taken up continually and another year passed." This would mean that both the winter of 1883–84 and 1884–85 passed without any work on the skyscraper problem. We would expect, therefore, the next portion of the account to report on the activity of the 1885–86 winter season. Instead, this season is omitted entirely and the account continues as follows:

> In April, 1886, the building in which I had my office was damaged by fire. Then this problem was brought face to face, and I decided that as soon as I was again settled, I would attend to it. So in the summer of that year I prepared for the patent and used for its illustration and construction my "twenty-eight story building."
>
> My final application for United States patent was filed November 14, 1887. The patent was issued May 22, 1888. My foreign patents, British, German and French, bear the same date. My attorney made five sheets of drawings containing twenty figures and in the specification described each figure and the relation to each other, showing that I claimed the veneer supported on shelves carried by angle plates fastened to a braced skeleton of iron, protected and preserved from disintegration and corroding. The columns or posts are smaller at the top with one plate on each side and more plates added as the weight increased toward the bottom, with lattice ties connecting them. I showed in the study drawings three different posts one using the channel, one as per the patent, and one braced with iron rods. These columns formed the supporting vertical elements and the horizontal ties and braces formed the braced skeleton of metal. Each building may show a different detail of construction as required, but these essential elements, or equivalents, of my patent are used in all steel construction of today. . . .[23]

It seems, then, from this report that the serious work which preceded the patent was not undertaken until the summer of 1886 and that the period between the summer of 1886 and the autumn of 1887 must have produced the number of careful drawings which belong to the Neo-Romanesque series. Consequently the combination drawing which occupied our attention above belongs to this period. This broad date (1886–87) is further confirmed by a drawing showing a 7-story section of a skyscraper skeleton (Fig. 9). The highly developed "raft" or "grillage" footing which it represents was probably unknown to Buffington before 1886. J. K. Freitag shows that steel beams such as those used in such footing were not rolled in the United States until 1885.[24] This precludes an earlier use of cast-iron beams for such purpose because of their low tensile strength. Furthermore, according to Freitag, the earliest known "raft" footing was used in the Rookery Building of Burnham and Root in 1885–86. The prior

22. *Op. cit.*, pp. 58, 62 ff. Mrs. Christison, like Upjohn, discovered other drawings with dated watermarks but these appear to belong to the developed stages nearing the patent project of 1886–87.

23. See United States Patent 383,170; *Specifications of Patents*, United States Patent Office, May 22–29, 1888, part 2^1, pp. 1931–32; *Drawings of Patents*, United States Patent Office, May 22–29, 1888, part 2^2, pp. 503–4.

24. *Architectural Engineering*, 2nd ed., New York, 1912, pp. 4–7.

development in Chicago of this and the pyramidal footing which appears in the *Elevation of Iron Construction* (Fig. 2) cannot be questioned. Both devices were developed there in order to "float" the buildings at a small depth rather than undergo the difficulty and expense of resting the foundations on "bed-rock" about a hundred feet below the ground surface. Consequently their "invention" in Minneapolis by Buffington in "1882," as his initials and date indicate, would be doubly suspect.[25] Upjohn rightly identified the 7-story skeleton with the raft footings as a scheme for the "28-story" building, although he did not specify which version of it. His further conclusion was that although the implied continuation of the piers presumes additional stories above, their marked diminution in size above the third floor precludes the possibility of many stories and that "it is extremely probable that Buffington merely intended to show on this one sheet how such contraction of the piers could be introduced when necessary, rather than that it would be adapted definitely at the fourth-floor level."[26] It happens, however, that the scheme corresponds exactly with that indicated in the half-section of Fig. 6, whatever the theoretical inadequacies in the great diminution of the piers above the third floor. Both give the same proportionate height to their corresponding floors, both show the batter from the sidewalk to the base of the fourth floor. It was probably intended, therefore, for the 25-story building or another similar version of the later "28-story" scheme. Its inadequacies may be attributed as much to Buffington's unfamiliarity with "Chicago construction" as to the theory that it was merely a preliminary study. Therefore, the proximity of the real dates of the two drawings in question can be assumed. Since the grillage foundation is incompatible with a date before 1886, the same date should be ascribed to the 25-story project.[26a] Additional confirmation of this conclusion appears in two buildings, one by Richardson and another by Buffington, which are closely related to the 25-story project. The entrance of this projected structure is made up of three low arches resting on clustered piers and surrounded by a checkerboard pattern. Its first appearance in virtually identical form occurs in Richardson's Austin Hall at Cambridge, Mass., built between 1881 and 1883 (cf. Figs. 6 and 8). I know of no publication of this building before 1885 which could have supplied Buffington with the motif.[27] While it is possible that he had some unpublished representation of the Cambridge structure, I feel certain that he did not use it before 1886. Moreover, Pillsbury Hall of the University of Minnesota, inscribed and dated *L. S. Buffington, 1887*, bears virtually the same crowning motif as the 25-story project and argues strongly for a proximate dating of the latter (cf. Figs. 6 and 7).[28]

I now come to what seem to be the last four drawings in the Neo-Romanesque sequence. Their close relationship is obvious but their exact order in relation to the 25-story project at first seems somewhat unclear. Its clarification may be begun by an examination of the ground plan in Fig. 21. This plan, which is dated "1882" and thus suggests a position anterior to the 25-story project of "1883," was accepted as such by Upjohn.[29] But to me the reverse order seems the more probable. As noted before, the 25-story project has four entrances and was therefore intended to occupy a completely isolated area. In this respect it is nearer the most primitive Neo-Romanesque scheme (Fig. 3). The ground plan of "1882" (Fig. 21), however, has only two entrances in front and merely windows on the corresponding sides in the rear. This arrangement suggests that the building was to occupy a corner lot which was flanked by two wide streets on the entrances and by two alleys on the others. In these respects its situation is identical with the last project of 1888 (Fig. 14). The similarity is confirmed by the differences between this plan and that of the 25-story project and by the analogies between the plan of "1882" and the project of 1888, as shown in the following analysis.

In the first place, the unrealistic idea that any building in the eighties could occupy an area so that it could have four

25. The derivative nature of Buffington's pyramidal footing is further confirmed by his naïve belief that such small bases would serve a 100-story, 1200-foot building! The typical pyramidal footing in "Chicago construction" of the early eighties, as illustrated by the old foundations of the Women's Temple, consisted of a slab of concrete 16½ feet square and 7 thick courses of masonry between it and the metal foot of the column proper (Freitag, *op. cit.*, p. 316). The footings of the Home Insurance Building were of the same type only slightly lighter (cf. note 43). Note that for his patented project Buffington does not use either the pyramidal or the raft footings: Fig. 12.

26. *Op. cit.*, p. 61.

26a. These conclusions were reached without having seen the original drawings. After having seen the drawing for the grillage foundation, I added to the preceding footnote that the "freshness of the paper and the character of the drawing suggest that even 1886–88 may be too early for it." Mrs. Christison believes that this belongs to a separate group of drawings and that it was included in the group for the "28-story" building by mistake. Whatever its real date and affiliation it still remains an important document on the veracity of Buffington, for it raises three important questions: First, why did Buffington sign and date it as he did; second, why did he make such an elaborate drawing of a "Chicago foundation" when he had no commission to design a building in Chicago; third, if this *Elevation of Iron Construction* was made after his patent had been secured, why did he relate it so closely to his 25- and 28-story projects?

27. See H. H. Richardson, *Austin Hall, Harvard Law School, Cambridge, Mass.*, Boston, 1885; also *Monographs of American Architecture*, Boston, 1886: Vol. 1, *Austin Hall.*

28. The stars which accent the spandrels in the Richardson and Buffington arcades are also used on the façade of Pillsbury Hall, and show again the preference for Richardsonian vocabulary at this time. For the illustration of this building I am indebted to Miss Vincent of the Department of Fine Arts of the University of Minnesota.

29. *Op. cit.*, p. 58.

equally important entrances fits the 25-story project (Fig. 6). Its ground plan shows other "unrealistic" features of planning. The space within the corner towers is isolated in pear-shaped units which receive all their illumination indirectly through windows opening on the vestibules and which could serve only as glorified closets or storerooms. In these features it is inferior and less developed than the ground plan of Fig. 21. Aside from the fact that this plan is more practical, since it is intended for a corner lot, its space is more logically and more usefully organized. The spaces of the corner towers are simplified and incorporated into larger areas which are more adequately and directly illuminated by having windows inserted in the body of the towers themselves. In so far as we can correlate this plan and the perspective rendering of 1888 (Fig. 14), the two seem to agree perfectly and, consequently, were probably made at about the same time, during the 1886–88 period.

The position of the incomplete study in Fig. 10 is evidently that of a preliminary sketch which probably preceded the patented project of 1887 (Fig. 12) as is shown by the close similarity of their larger features.[30] The affinity of both to the "425-foot" project (Fig. 3) and to the 25-story design (Fig. 6) is evident in the double zone of arches at the top, the character of the turrets, the single monumental dormer windows, the prominent inclination of the lower part of the walls, the triple portal and the ground plan.[31] These similarities confirm once more the probable contemporaneity of the several designs within the 1886–88 period.

The period in question was apparently a very productive one for Buffington, as seen in the skyscraper studies and in the many commissions whose renderings enrich the Buffington portfolio of drawings for those years. It coincides with a number of important events in the architectural world. The most important for Buffington's practice was the acquisition as chief designer of Harvey Ellis, whose masterful pen and ink renderings earned him enviable epithets.[32] The other events are connected with Henry Hobson Richardson, whom Ellis knew at Albany and whom he admired unreservedly, if we but judge from the fact that he called him "magnificent big brute" and assimilated his Neo-Romanesque style better than most architects west of Chicago.[33] The year 1886 saw also the death of Richardson, the consequent publicity given to his achievement and the publication of some of his most important structures.[34] The next two years encompassed the completion of his two great monuments, the Marshall Field Store in Chicago and the Allegheny County Court House and Jail in Pittsburgh. Undoubtedly Richardson must have been much in the mind of the surviving members of his profession. His works were certainly in the mind of Buffington — and Ellis — as demonstrated by the further assimilation of Richardsonian motifs in the schemes which preceded the publication of the project of 1888 (Fig. 14). The double zone of openings at the top of Fig. 10 seems to have been adapted from the first Ames Store in Boston (Fig. 11).[35] The two agree in the coupled windows in the upper register and the arcade of 2-story embracing arches below. The turrets with their graceful swelling, narrow windows and ogee roofs seem very similar to their earlier equivalents in the Crane Memorial Library, the Billings Memorial Library and the Ames Gardener's Cottage.[36] Even the last skyscraper project (Fig. 14) is surrounded by structures which provide a congenial Richardsonian setting. The building on the left recalls easily the second Ames Store whereas that on the right follows the pattern established by the Marshall Field Store.[37] It is evident then that the second and dominant sequence of the skyscraper projects was almost entirely dependent on Richardson's works. There remains the more precise definition of the position of the West Hotel in which Buffington claimed to have used the embryo of the column and the supporting shelf of the skeleton of steel construction; the chronology of the columnar schemes; and the resolution of the various contradictions found in the drawings and *Memories*.

The West Hotel (Fig. 5) can be dismissed simply by pointing out that there is nothing in the description of the lobby or in the drawing published by Upjohn which differs from the common practice of carrying floors on I-beams supported by cast-iron columns (Fig. 5a).[38] One wonders then whether Buffington knew anything about the principle of carrying the enclosing walls of a building on spandrel

30. That is, the uppermost zones of windows, number of bays, etc. This incomplete design is signed *L.S.B. 1886* and there is little reason to dispute its date.

31. Still another version, slightly different from either of these, appears in Francisco Mujica, *History of the Skyscraper*, Paris, 1929, pl. XXIV.

32. Fitzpatrick, his predecessor in the Buffington office, described him as the "cleverest designer of his day" (see note 41 and also Claude Bragdon, "Harvey Ellis: a Portrait Sketch," *Architectural Review*, XV, 1908, pp. 173–83; Francis Swales, "Master Draftsmen, III: Harvey Ellis, 1852–1907," [sic] *Pencil Points*, V, 1924, pp. 49 ff.).

33. Swales, *loc. cit.*

34. Richardson died April 27. Some of the publications of that year were: *Monographs of American Architecture*, Boston, 1886: Vol. I: *Austin Hall*; Vol. III: *The Ames Memorial Building*; Vol. V: *Trinity Church*; see also "Illustrations of the Work of H. H. Richardson," *American Architect*, XX, September, 1886, pl. 559.

35. The reference here is to the store at Kingston and Bedford Streets, 1882–83.

36. H. R. Hitchcock, *The Architecture of H. H. Richardson and His Times*, figs. 74, 106, 125 respectively.

37. Cf. Hitchcock, *ibid.*, figs. 138, 127.

38. The ART BULLETIN, XVII, 1935, pp. 53–54, fig. 3. Photographs of the building (Fig. 5a) taken by Mrs. J. R. Christison during its recent demolition prove this conclusively.

beams or on "shelves" before the erection of the Home Insurance Building in Chicago between 1883 and 1885.

The most interesting sidelights on this question and on Buffington's career and personality are evident in personal testimonies. One of these is quoted by Buffington in his *Memories*, where he recounts how Eugene F. Osborne, engineer and mechanical expert from Chicago, had said to him, "I saw many of your studies in 1882, before the patent was issued."[39] There is no indication, however, as to when and under what circumstances the statement was made. The other testimony comes from Professor F. M. Mann, of the School of Architecture of the University of Minnesota. In a letter published in the *Minneapolis Journal* he related how Buffington had told him in 1929 that he had "perfected the idea of the skeleton form in 1882 and made a design of a 28-story building to illustrate the possibilities of such construction." Mann further reported that Buffington had said that Jenney of Chicago had visited him in Minneapolis during the winter of 1882–83, that Buffington showed him the West Hotel, then under construction, and his sketches for his skyscraper projects, and explained his ideas for a skeleton construction. Then, upon his return to Chicago, continues the report, Jenney built his Home Insurance Building, in which he incorporated Buffington's ideas.[40]

The evidence already adduced from other sections of the *Memories* and from the drawings themselves makes the purported relationship to Jenney completely unreliable. As far as we know, Buffington made no such claim upon Jenney while the Chicago architect was still alive. In this connection it is interesting to quote some passages from a letter written by F. W. Fitzpatrick, former designer associated with Buffington, published in the *American Architect*.[41]

> I know that Colonel Jenney's Home Life Insurance Building in Chicago was the first skeleton structure in the country. I did not even know that Mr. Gilbert had claims to antedating it but it never seemed to me that Buffington's or any other patent in that line of construction amounted to a row of pins. The whole thing was rather the result of sometimes slow, sometimes rapid, evolution and the fertility of the American mind to grapple with existent conditions.
>
> The Buffington patent always seemed more or less a joke to me. In 1883 I was employed by him as a designer. Previous to that time I had a lot to do with high church towers and had often thought over some scheme or other of doing away with the excessive weight and thickness of their supporting walls. The steel skeleton did not present itself to me then as a full-grown flower, but rather in the shape of a seed deposited in not unfertile soil. My idea was to reinforce the walls with iron beams placed vertically. Well in '83 Mr. Buffington had as you may remember the cream of the work of the West. The first thing I had to tackle was some trouble in the West Hotel then under construction. One of the bay-windows had fallen down or something or other, and I "flashed" my beam-reinforcement, but was pooh-poohed for my pains. But a little while later [1885] the Tribune Building and several other big commercial structures were on the tapis. There the seed had taken root and was actually pushing up sprouts. I wanted to get the Tribune people into the notion of building a twelve story structure and made the sketches showing cast-iron columns, bedded in a thin outer wall, with girders at each story, and the next story's thin outer wall carried on that line of girders, and so on up. This was termed "crazy construction" by Buffington. But at that time there was rather a skillful engineer there (who also later invented the tubular tunnel that has been so much infringed in subsequent times) named Strom, who figured up this construction very carefully, proposed a substitution of wrought iron members for the cast columns and declared that such a building could be carried up and safeguarded against wind, etc. easily to twenty or twenty-two stories. In 1886 I severed my connections with Mr. Buffington and was succeeded by probably the cleverest designer of his day, Harvey Ellis. Strom was still there. In due course there appeared in the *American Architect*, I believe, or in another technical publication, a splendid picture of a twenty-five story building "designed" by Buffington. People generally looked upon it as a wild eyed scheme, and even I felt a bit ticklish about the twenty-five stories, but gave it no particular thought, treating it merely as a "project" but knew nothing of its being *patented*. Some years later I was surprised to see that suits had been filed by Mr. Buffington against several owners and architects in Chicago for infringing his "patent." Nothing came of the suits.

Upjohn thought that Buffington had discouraged Fitzpatrick's suggestions because he was thinking of patenting his own scheme and was merely concealing his own ideas.[42] This hypothesis, however, must be ruled out. To believe that Buffington was hiding his ideas from his designer in 1883 and that he revealed them completely to Jenney, his rival, in "1882–83" so that he could use them in his Home Insurance Building is to violate the boundaries of credibility.

The reverse course of the idea from Jenney to Buffington is probably closer to the truth. Fitzpatrick's letter reveals quite clearly that Buffington knew little, if anything, of "skyscraper construction" before 1886. It was probably the erection of the Home Insurance Building and the description of its construction by Jenney in the *Sanitary Engineer* for December 10, 1885[43] — not the *Lectures* of Viol-

39. Upjohn, *loc. cit.* Woltersdorf's story according to which Adler credits Buffington with a crude but effective skeleton construction is not justified by any supported facts. See note 2.

40. Upjohn, *op. cit.*, p. 54, note 2.

41. XCII, July 13, 1907, pp. 15–16.

42. *Op. cit.*, p. 55.

43. "Construction of a Heavy Fireproof Building on Compressible Soil," *Sanitary Engineer*, XIII, pp. 32–33. In addition to the discussion of fire proofing, Jenney describes and illustrates with diagrams the pyramidal isolated footings, the attachment of the I-beams to the columns by means of brackets fastened to them, and a plan of the metal network made up of "piers, iron columns, girders, etc."

let-le-Duc — which suggested the peculiar modifications of the principles of skyscraper construction with "braces" and "shelves" and the fabulous prospects of a patented "invention."[44] The coming of Harvey Ellis to his office must have been like manna from heaven. Since there are practically no Neo-Romanesque projects in the Buffington collection of drawings for private and public buildings dating before 1886 and since all the outstanding examples bear the stylistic imprint, and often the signature, of Ellis as designer I believe that it was he who converted his employer to the Richardsonian faith.[45] In the light of this evidence the most primitive Neo-Romanesque project (Fig. 3) must be attributed also to Ellis, or to his influence, and assigned to the beginning of the active period 1886–87 which led to the skyscraper patent.[46] The clarity of form, the stylistic consistency and the distinctive imaginativeness of that project are more in consonance with the work of Ellis in the Buffington office than with the earlier works of his employer. With this probability in mind, the columnar designs, which are dated "1882" and which we tentatively assigned to 1883–84 because of the account in the *Memories*, must be brought closer to the early Neo-Romanesque scheme. As noted before, both the columnar projects and the Richardsonian tower were drawn on the same kind of paper; they all have certain basic similarities in their massive bases, their tops, horizontal banding and location (Figs. 1, 3). The characteristic analogies between the setting of the 50-story building and the Neo-Romanesque tower already foreshadow the location and character of the patented project and that published in 1888 (Figs. 12, 14). Without prolonging the argument unnecessarily, one can conclude, therefore, that these schemes were the preliminary steps of the skyscraper venture which may have originated in Buffington's mind in the winter season of 1885–86 after reading Jenney's article, but their imaginative character suggests that they were done after the arrival of Ellis. The date corresponds to the evidence already adduced to show that the skeleton construction and the Neo-Romanesque style were not fully understood by Buffington before Ellis succeeded Fitzpatrick as designer in 1886. It is thus proved beyond doubt that Buffington's claims to the priority of "invention" or of the development of skeleton construction cannot be substantiated. Any credit which he might take for giving wide publicity to the skyscraper construction and for the merits of the various designs connected with his office must be measured against the stature of Harvey Ellis who is still to be reconstituted as an artistic personality.[47]

In the face of the overwhelming evidence against the claims of Buffington, the determination of when and why the signatures and dates in the drawings were introduced will hardly change, and it should confirm my essential conclusions. If Buffington introduced them, he certainly failed in his purpose, for in his *Memories* he contradicts the implications of the dates in the drawings. If someone else interpolated them, the motive behind the act is not clear and certainly did not bear fruit. Upjohn felt compelled by the obvious anachronism of the 7-story skeleton elevation to raise the question of whether all or some of the signatures and dates were false. But his very summary analysis of Buffington's signatures and dates in the eighties and nineties seems to have been further weakened by an underlying conviction that the dates, with only one possible exception, were correct. The anonymous "expert in handwriting" consulted by Upjohn testified that the drawing of the *Elevation of Iron Construction* was done at the same time as the signature and the date on it. This need not mean that they were done in 1882 but that is what Upjohn understood them to mean and made further comparative observations on the writing of Buffington to prove the authenticity of the signatures on the other drawings as well.[48] But he did not provide visual proof in the form of comparative material such as letters, contracts, etc., which were signed and dated in the normal course of Buffington's business practice and therefore beyond suspicion.

In any case Buffington seems to have had little faith in these dated drawings, for he referred to them in his *Memories* only sparingly and indirectly — and then unwittingly to his disadvantage. He may have used them for the purpose of impressing the priority of his claim upon his personal friends. He certainly could not have used them as evidence in the litigations resulting from his attempt to prove that

44. I am firmly convinced that it was the reading of Jenney's article that sent Buffington to the libraries to see if the cage construction was patented and that subsequently led to his patenting his particular version of it. His attributing his inspiration to Viollet-le-Duc seems a convenient subterfuge. The chronology inferred from the sequence of the drawings and from their relation to extant buildings in Pittsburgh, Chicago and elsewhere harmonizes more with Jenney's article of 1885 than with Viollet-le-Duc's *Lectures* of 1881.

45. Mrs. Christison holds that the Neo-Romanesque had appeared in Buffington's office before the arrival of Ellis (*Minnesota History*, September, 1942, p. 227). The drawings which I examined, however, dating before 1886, show very little evidence of it and least of all do they show any of the qualities which distinguish the work of his office after that date — especially the skyscraper designs. According to Fitzpatrick, Harvey Ellis succeeded him in the Buffington office in 1886 (see note 41 and letter quoted above). Swales, however, who misdates Ellis' death by three years, writes that he went west in 1885 but does not imply that he went directly to Buffington's office (*op. cit.*, p. 49).

46. This date is confirmed to some extent also by the appearance of the essential characteristics of the upper portion of the Neo-Romanesque project in another scheme dated 1887–89 and intended for the tower of the Minneapolis City Hall and the Hennepin County Court House.

47. The few short eulogies which have appeared since his death are certainly inadequate (see note 32).

48. Upjohn, *op. cit.*, p. 65.

certain buildings with skeleton construction were an infringement of his patent.[49]

The reason he added the early dates and thereby claimed priority of invention was probably because he had little faith in his patent, especially after his first futile lawsuit, and he needed something to bolster his ego or his reputation. The idea for such a fantastic claim may have occurred to him before 1895, when Ellis left his office, but there is no evidence that he made his claim public before Ellis' death in 1904 or Jenney's retirement in California in 1905.[50] He certainly did not allude to the "dated" drawings as evidence of his claim while Ellis and Jenney were still alive. Mrs. J. R. Christison has made a special study of the problem of signatures and dates, as related to Buffington's *Memories* and drawings, which will undoubtedly round out the discussion of Buffington's claim.

On the basis of the foregoing analysis of varied internal and external evidence bearing upon the enigma of Buffington's skyscraper I propose the following hypothetical, but very probable, account of his activity. He knew little or nothing of skeleton construction before the winter of 1885–86. Upon reading Jenney's article in the *Sanitary Engineer*, for December 10, 1885, he was struck by the technical and financial possibilities of the principle of skeleton construction. Since, according to his own credible investigations on that point, the principle had not been patented, he proceeded to develop his own version of it with the assistance of Ellis, the designer, and Strom, the engineer, for the purpose of securing a patent. The evolution of his "scheme" seems to fall into three phases. The first phase — early 1886 — is represented by the columnar projects (Figs. 1, 2) which include the *Elevation of Iron Construction* with the isolated pyramidal footing, very similar to the type illustrated in Jenney's article and totally unsuited to Minneapolis foundations. The second phase — 1886–87 — shifted to the Neo-Romanesque style and developed the isolated Richardsonian tower (with an entrance on each of its four sides) leading to the patented project of 1887 (Figs. 3, 6, 10, 12 in the order given). The third phase — 1887–88 — developed along still more practical lines the various versions of the 28-story building which has entrances only on two sides and no dormer windows (Figs. 14, 17). This project was intended for publicity.

The foregoing account would be approximately all that a truthful record would accord to the Buffington office. But Buffington's mania for distinction and the costly suits for "infringement" of his patent demanded some compensatory reward and he proceeded to invent it. He may have thought about making his claim to priority of invention before Ellis left the office in 1895 but the earliest published reference to his claim suggests that he announced it after that date and certainly before 1907. It was probably during the same period that he signed and dated as of 1881, 1882, etc. the projects which preceded the patented skyscraper of 1887. Perhaps at this time he also designed the skeleton with the grillage footing and formulated the account of how the *Lectures* of Viollet-le-Duc inspired his invention. This account he later elaborated in his *Memories* and unwittingly provided the key to the enigma of his skyscraper.

NEW YORK UNIVERSITY

49. Buffington's Iron Building Company was probably organized in order to grant licenses to use the patent and to prosecute those who infringed it. He spent a great deal of money in many suits arising from "infringements" but never won a single case. He lived, however, long enough to receive royalties on his patent after its legal term had expired, and as a result of a gesture compounded of modern publicity and civic pride when the owners of the Rand Tower at Minneapolis paid him voluntarily about $2500. Since the tower was designed by Holabird and Root, the modern successors of the earlier Chicago firms of Holabird and Roche, and Burnham and Root, which did so much for the development of the skyscraper, the royalty was an ironical inversion of poetic justice.

50. The retirement of Jenney was announced in the *American Architect*, LXXXVII, May 20, 1905, pp. 157–58, where the question of who was the earliest to apply the principles of skyscraper construction is raised only with reference to Jenney, and Gilbert of New York. It is not until the issue of June 22, 1907, that an editorial of the *American Architect*, noting the recent death of Jenney, suggests that Buffington was an earlier contestant for the same honor: "A few years ago, because of disputation over the matter, the American Institute of Architects examined the evidence accessible and decided that as between Messrs. Bradford L. Gilbert, L. S. Buffington, and W. L. B. Jenney, all architects of standing, the latter had the better claim to be considered the originator of the modern method of steel-skeleton construction for high buildings." I have been unable, however, to locate any earlier publication of this "ruling" that would suggest the date of the first instance of Buffington's claim to priority. In any case what indirect evidence we have suggests that the fraudulent claim was first made probably between 1905 and 1907 when the principal witnesses who could contradict him were out of the way. This period, therefore, may be the time when the signatures and dates were added to the drawings of 1885–88.

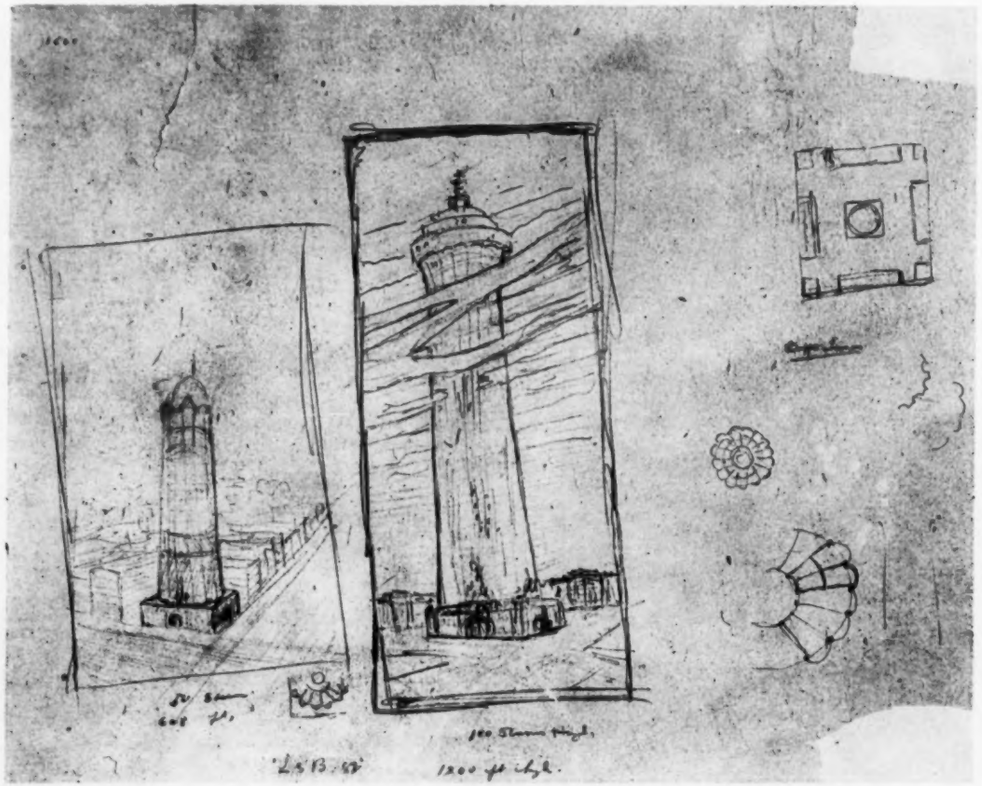

FIG. 1. Studies for 50-Story and 100-Story Building, Dated 1882

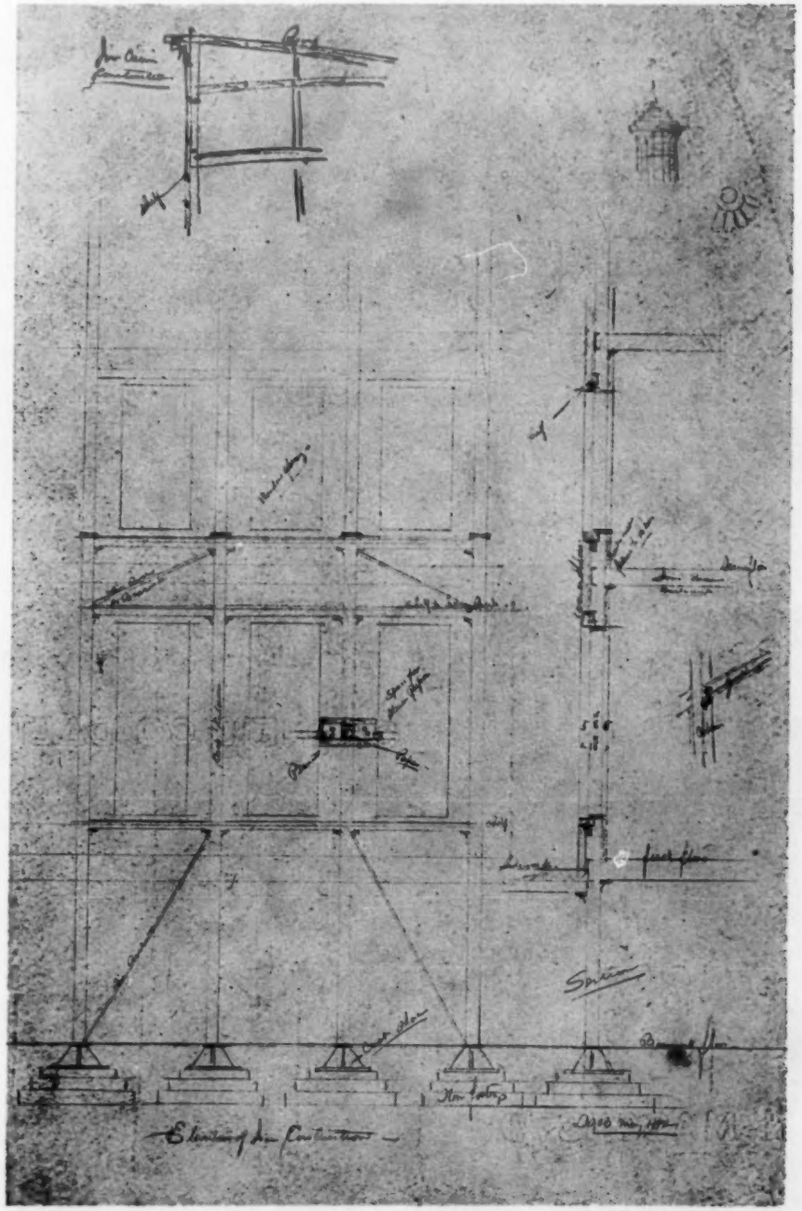

FIG. 2. "Elevation of Iron Construction," Dated May, 1882

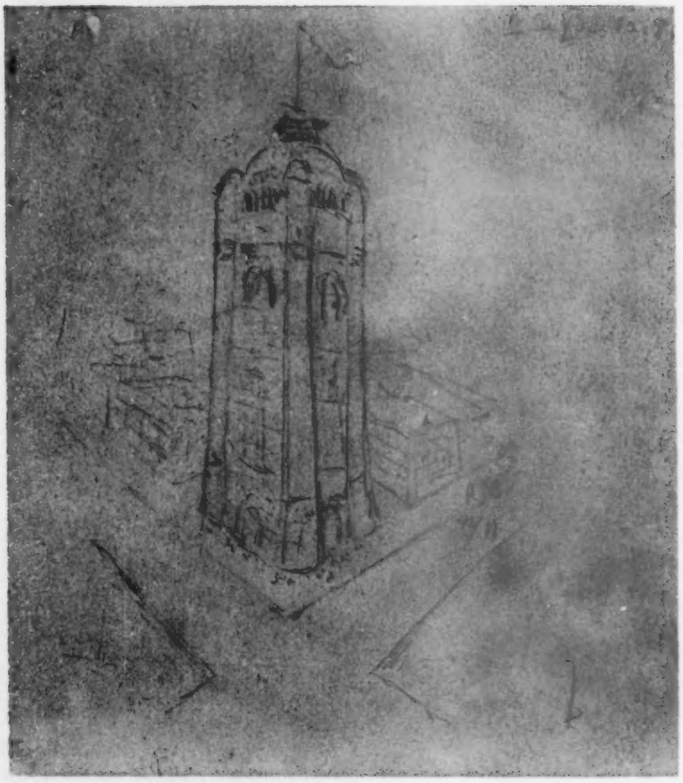

FIG. 3. Study for Skyscraper, Dated 1881

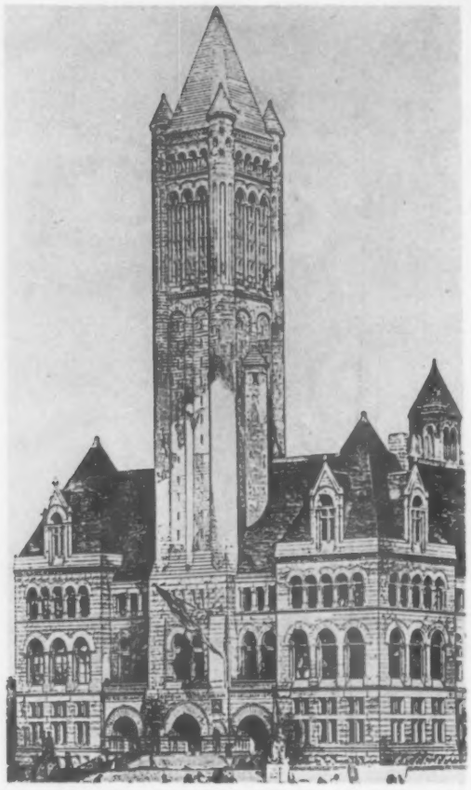

FIG. 4. Pittsburgh: Allegheny County Court Building by H. H. Richardson, 1884–87

FIG. 5. Design for West Hotel, Minneapolis, Minnesota

FIG. 5a. Minneapolis: Lobby of West Hotel in Process of Demolition

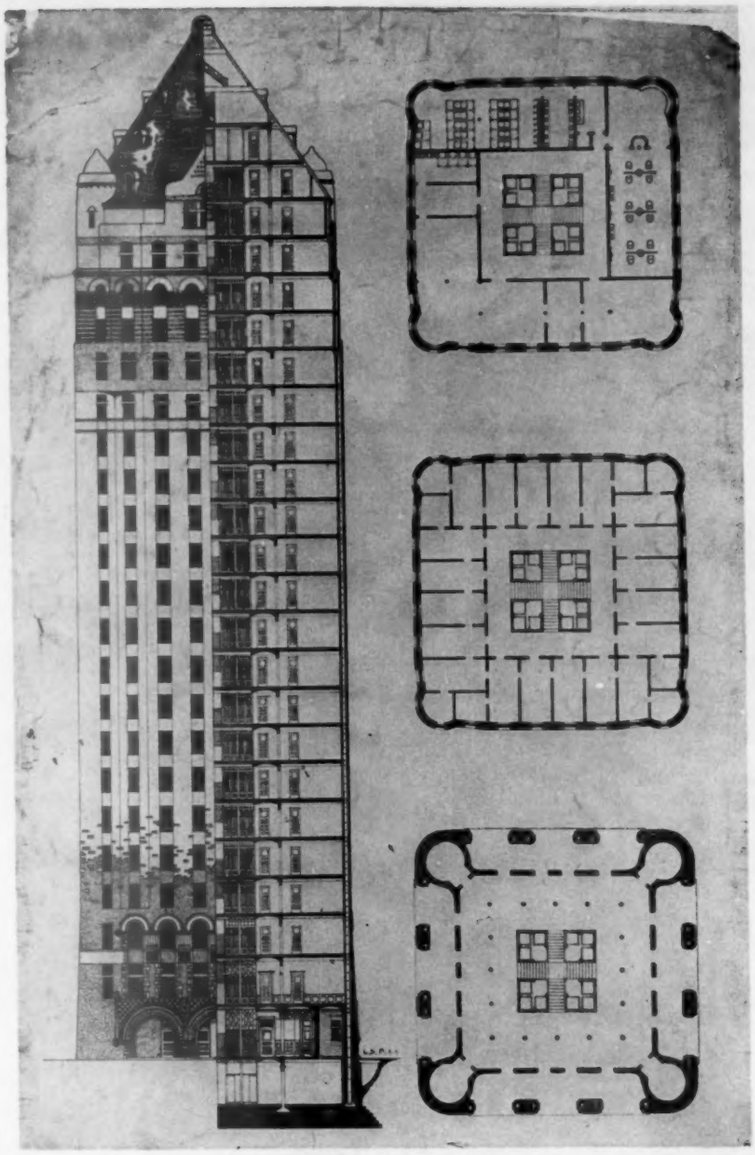

FIG. 6. Half Elevation, Half Section, Plans for 25-Story Building, Dated 1883

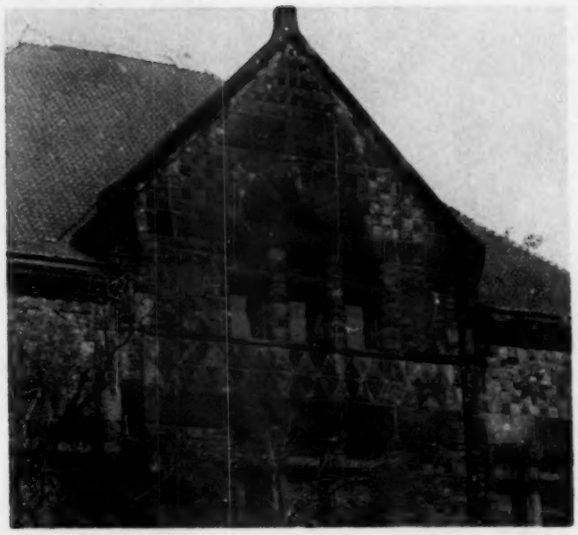

FIG. 7. Minneapolis: Detail, Rear Elevation, Pillsbury Hall, University of Minnesota, 1887

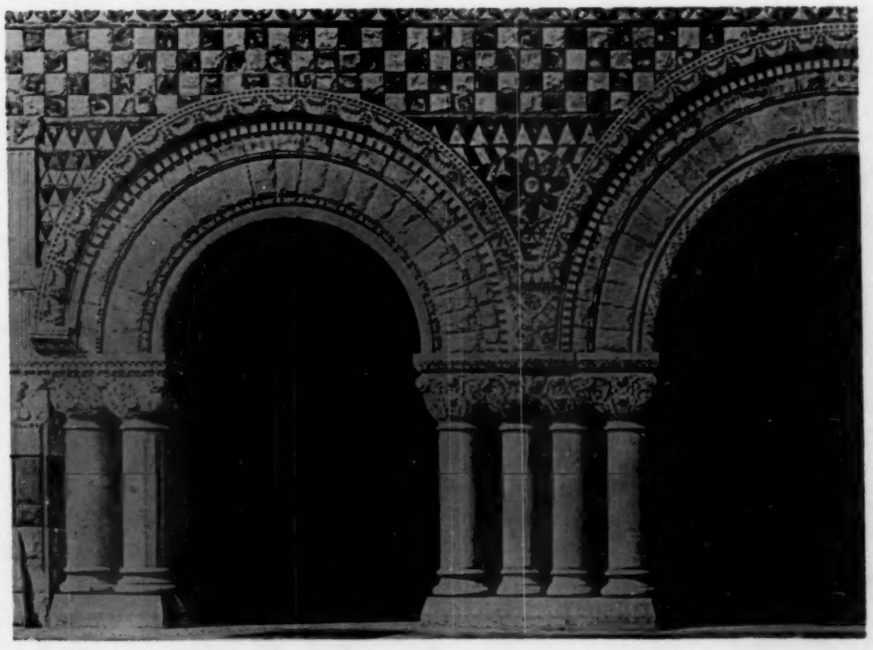

FIG. 8. Cambridge: Detail, Austin Hall, by H. H. Richardson, 1881–83

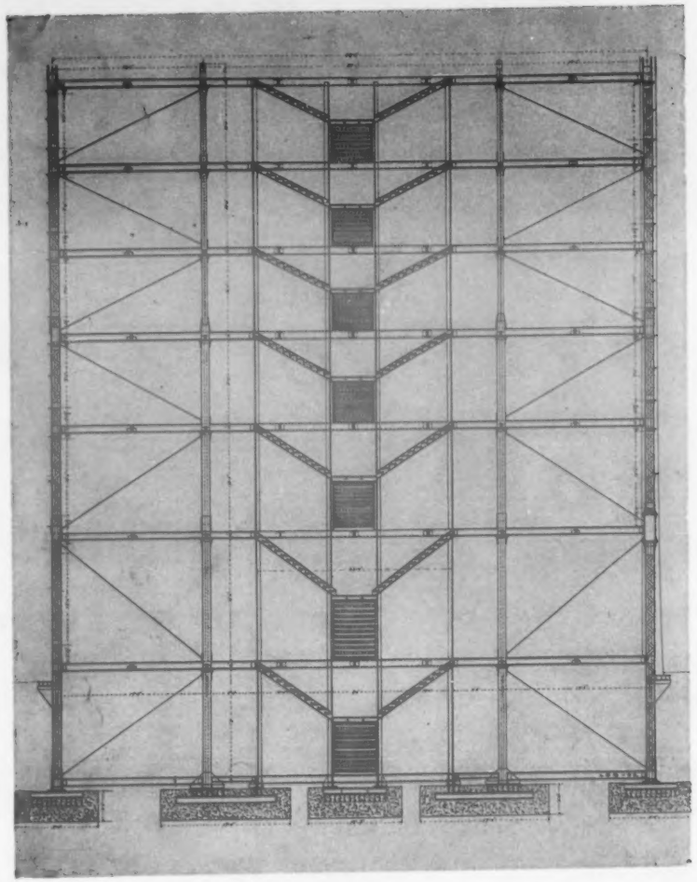

FIG. 9. Section, Seven Stories of Skeleton Construction, Dated 1882

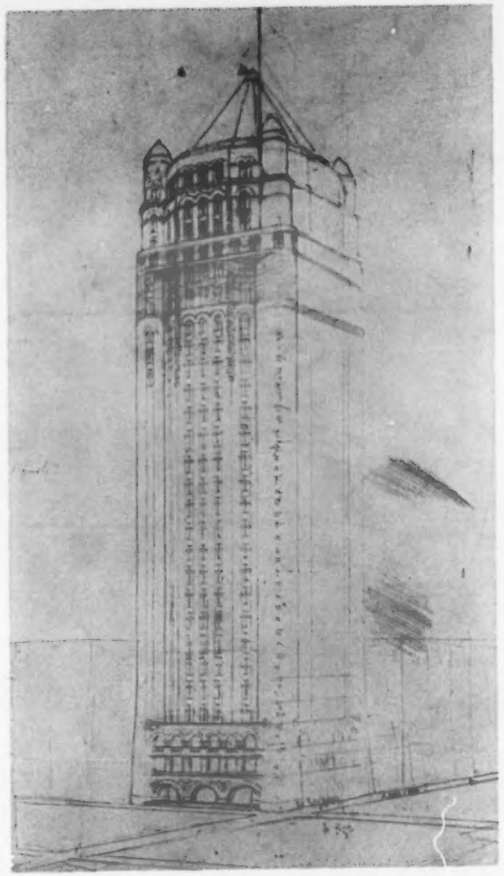

FIG. 10. Study for 28-Story Building, Dated 1886

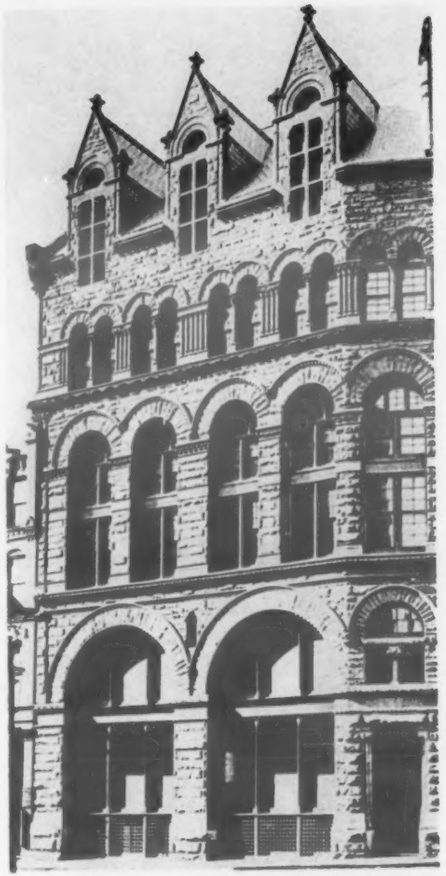

FIG. 11. Boston: Detail, Ames Store, by H. H. Richardson, 1882–83

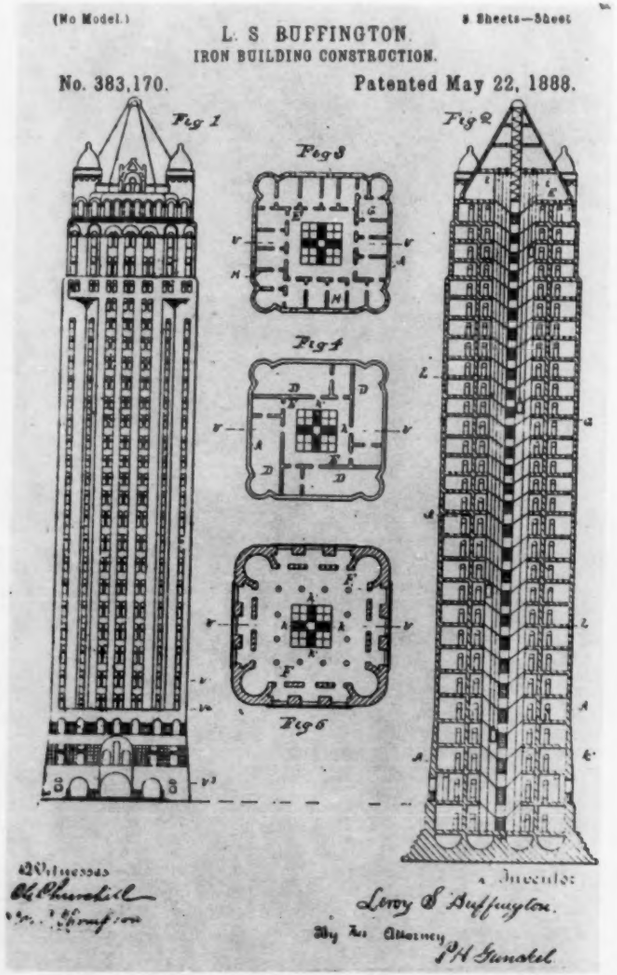

FIG. 12. Elevation, Plans, and Section of Patented Building, Designed in 1887

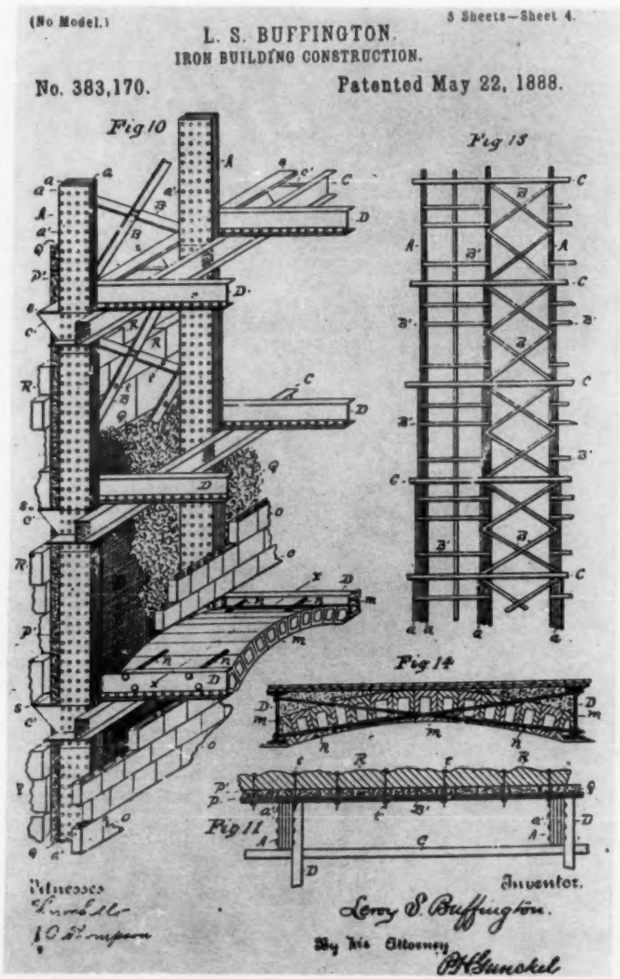

FIG. 13. Details of Iron Building Construction, Designed in 1887

FIG. 14. Study for 28-Story Building, 1888

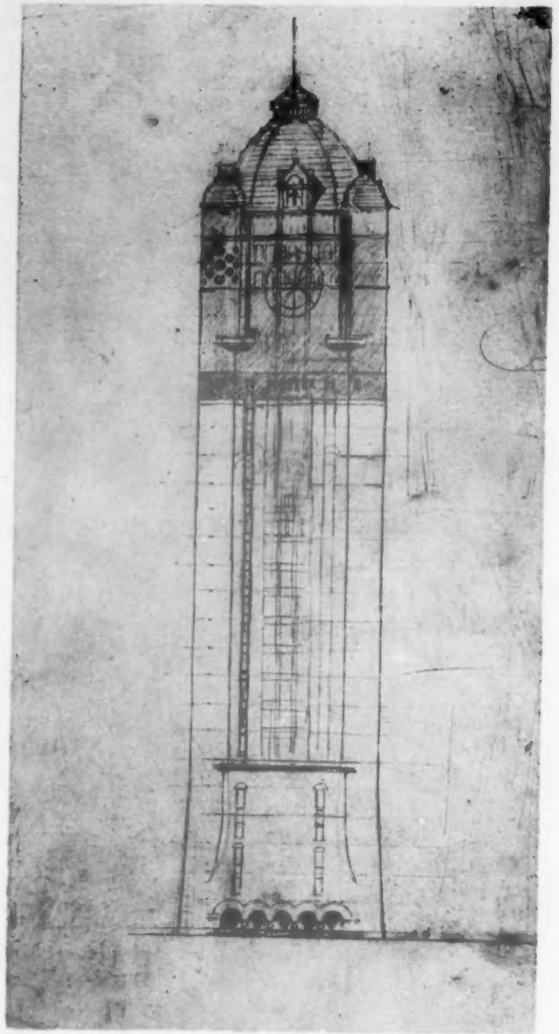

FIG. 15. Study for Skyscraper, Dated 1886

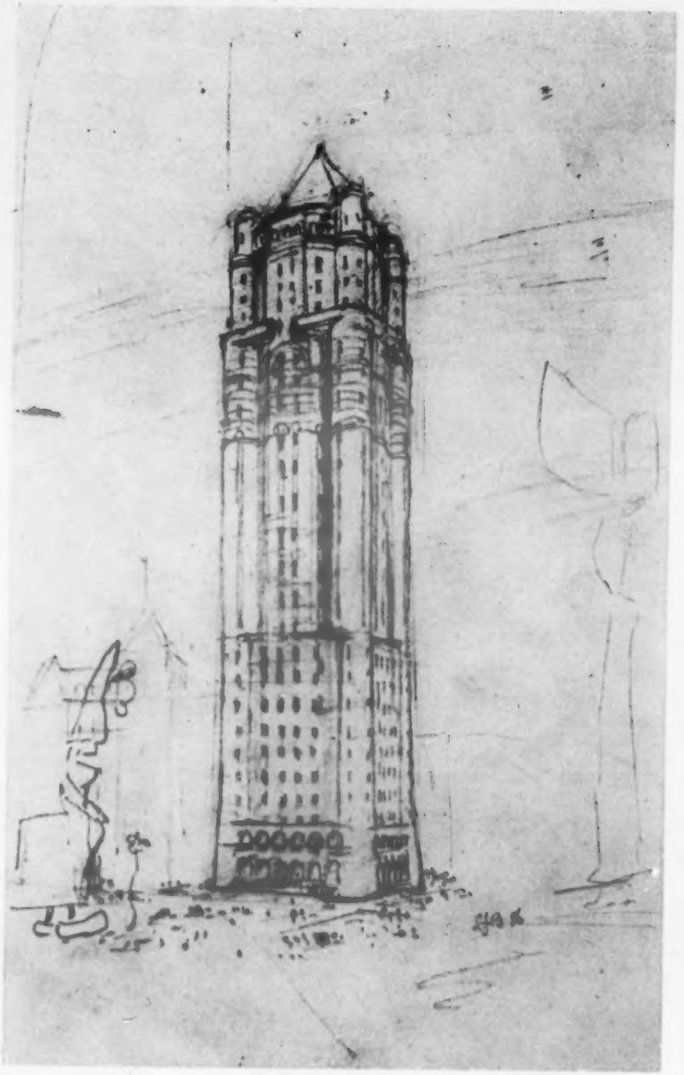

FIG. 16. Study for Skyscraper, Dated 1886

FIG. 17. Study for 28-Story Building, Dated 1887

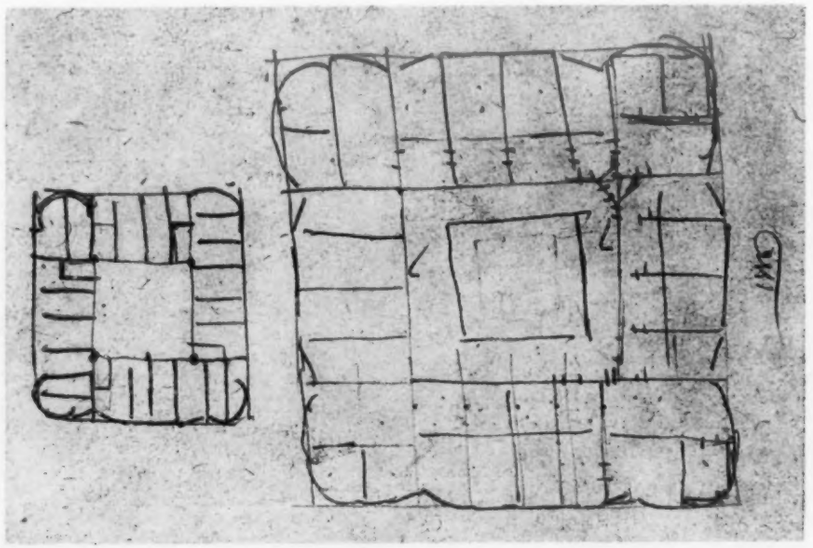

FIG. 18. Plans for 28-Story Building, Dated 1885

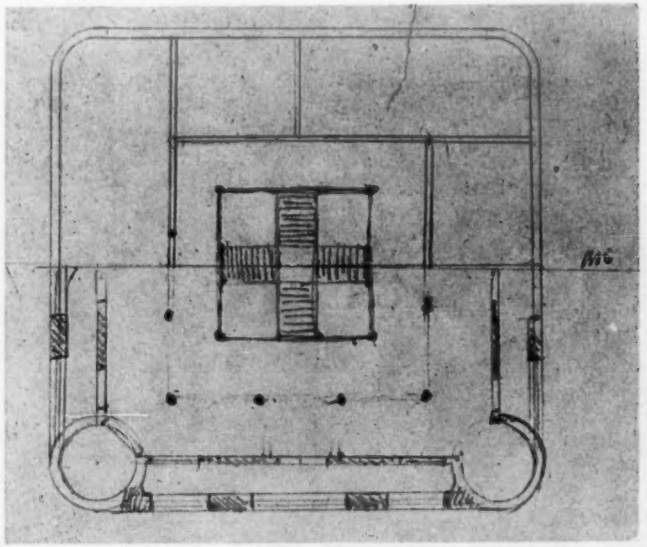

FIG. 19. Ground Plan for 28-Story Building, Dated 1886

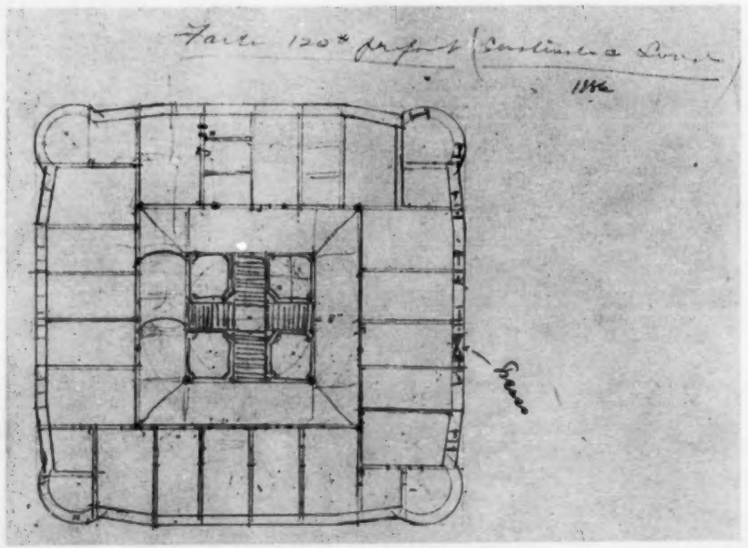

FIG. 20. Typical Floor Plan for 28-Story Building, Dated 1886

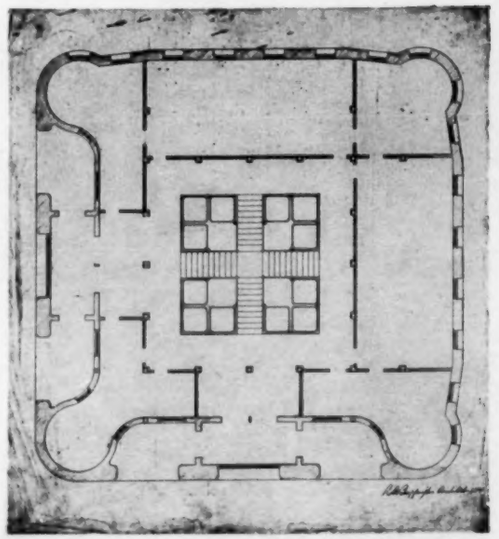

FIG. 21. Ground Plan for 28-Story Building, Dated 1882

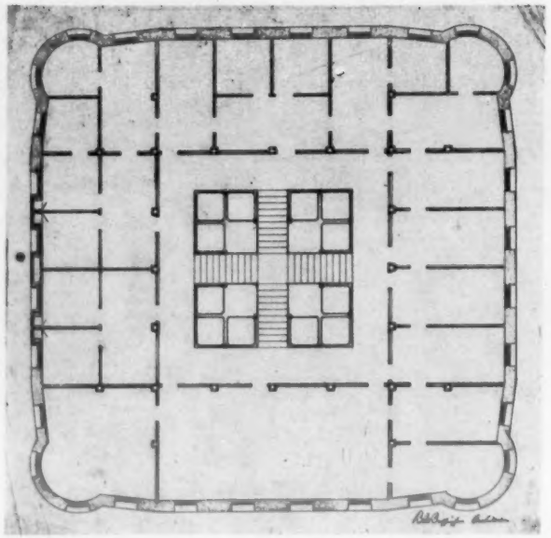

FIG. 22. Typical Floor Plan for 28-Story Building

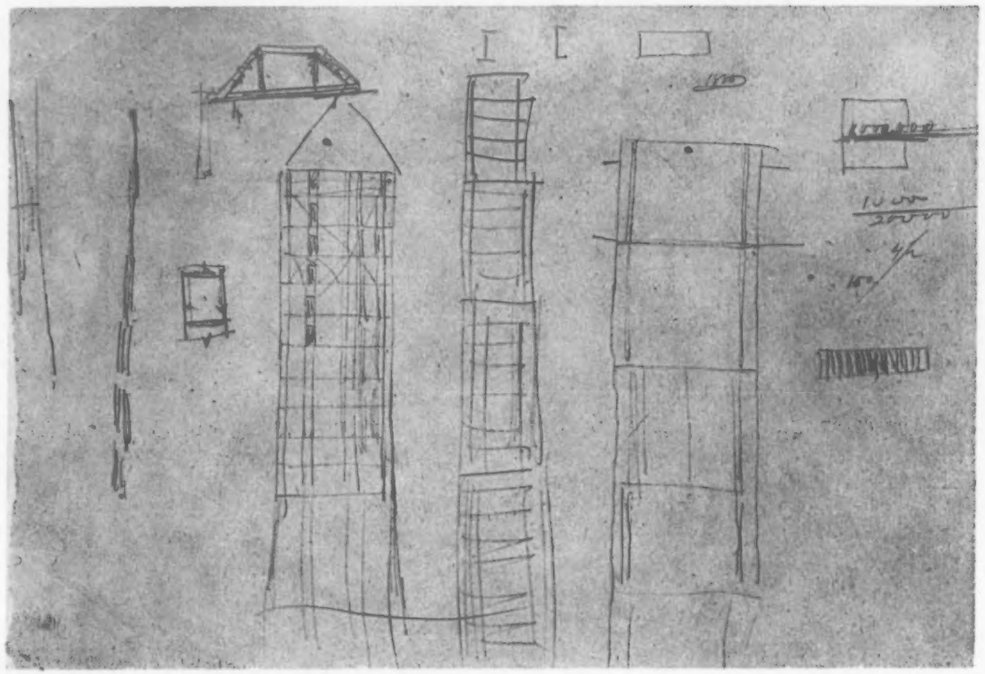

FIG. 23. Sections and Details for 28-Story Building, Dated 1885

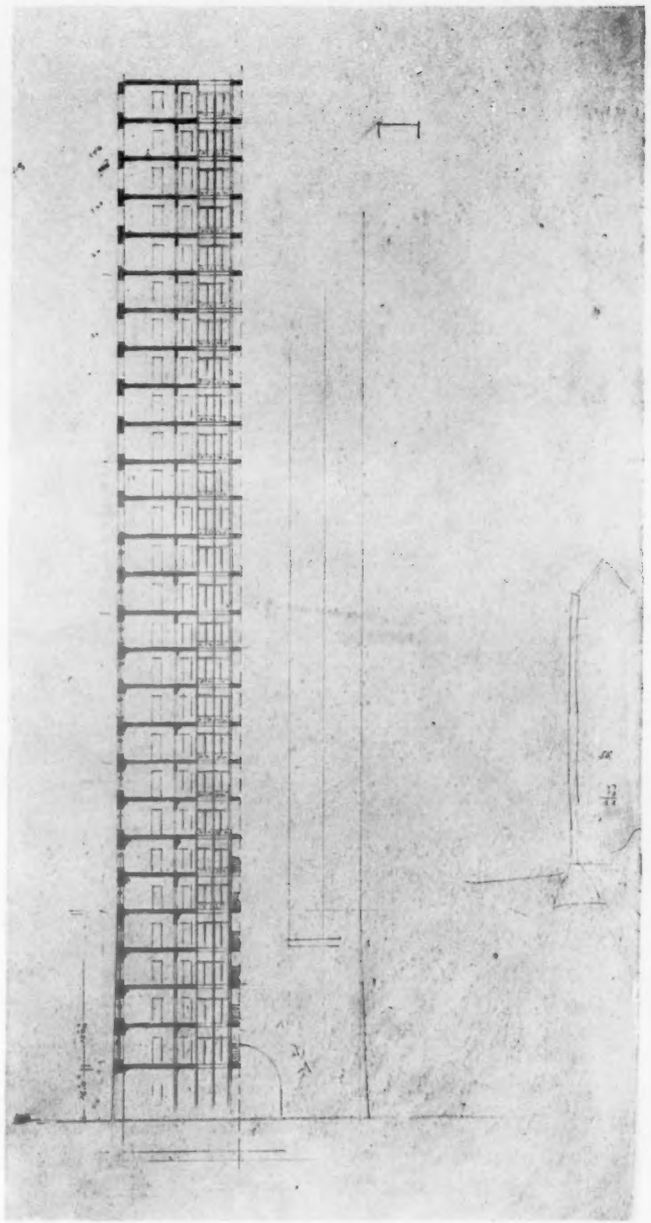

FIG. 24. Section of Twenty-Seven Stories, Dated 1886

HOW BUFFINGTON STAKED HIS CLAIM

AN ANALYSIS OF HIS *MEMORIES* AND SKYSCRAPER DRAWINGS

MURIEL B. CHRISTISON

THE most recent serious consideration of Buffington's claim to the title, "Inventor of the Skyscraper," was E. M. Upjohn's excellent article published in 1935.[1] Since that time additional material, including documents and drawings, has been made available for study by the Buffington family. This material relates very definitely to the skyscraper problem. It is necessary to re-examine it carefully, not only in itself, but against the background of Buffington's other work. Then the relative importance of the manuscripts and drawings as authentic historic documents becomes almost self-evident, and Buffington's particular role in the development of skyscraper construction can be determined. For this purpose, there is presented in this article an analysis of Buffington's *Memories*[2] and a discussion of the related drawings, with special attention to the chronology in the written account and the signatures and dates on the drawings.

Before considering the manuscript and drawings in particular, there are a few observations on Buffington's work which bear upon the problem. These are based on a study of architectural drawings made by Buffington or coming from his office over a period of sixty years. Buffington is known to architectural students today as an exponent of the Richardsonian Romanesque style. His reputation as such is based largely upon the well-known designs by Harvey Ellis, many of them for buildings never erected. Buffington's personal style found its most natural expression in the ornate work of the late seventies and early eighties. His success as a popular architect in the late seventies won him some of the largest commissions in the Minneapolis area between 1880 and 1885. These included the much publicized West Hotel, the Tribune Building, the Sidle and Eastman Blocks. His first building in the full Richardsonian style was the Unitarian Church, built in Minneapolis in 1885, and designed before Ellis joined the firm. Though several Minneapolis architects had taken up the Richardsonian style by the time of the Public Library competition in 1885–1886, Buffington still showed some preference for the restless design and heterogeneous style of the seventies. There was a popular saying in Minneapolis: "If your horse shies as she goes past a house, it must have been built by Buffington!"

Many of his regular clients continued to employ Buffington through the second half of the eighties and into the early nineties. The distinguished Richardsonian designs of this period came almost exclusively from the pen of Harvey Ellis.[3] Most of the big commissions of the late eighties, however, slipped through Buffington's hands — though he made every effort to grasp them. Such important buildings as the Public Library, the Court House, the Masonic Temple, the Lumber Exchange, the Guaranty Trust Building and the Exposition Building were all awarded to other firms. Buffington had acquired a reputation for extravagance while building the West Hotel, and Ellis' designs were not as practical as they were handsome. So it hap-

NOTE. The illustrations for this article and the preceding article by Mr. Tselos have been gathered together and placed between the two. Ed.

1. "Buffington and the Skyscraper," THE ART BULLETIN, XVII, 1935. While investigating Buffington's claim, Mr. E. M. Upjohn was successful in procuring the Buffington manuscript and the skyscraper drawings for purposes of study and in effecting the donation of the drawings to the University of Minnesota Library. I am indebted to Mr. Upjohn for helpful suggestions in making a re-examination of the problem. Before writing this article I read the manuscript of Mr. Tselos' preceding article which he kindly sent to me.

2. The original manuscript is still in the possession of Buffington's daughter, Miss Ella Buffington, of Minneapolis. I annotated the manuscript as an M.A. thesis for the Fine Arts Department of the University of Minnesota.

3. Many of Harvey Ellis' drawings of the 1890's show no less aptitude for the style of Louis Sullivan.

pened that Long and Kees and E. Townsend Mix succeeded Buffington as leading Minneapolis architects in the Richardsonian style. After such phenomenal success during his early career, it must have been difficult for Buffington, still a young man in 1885,[4] to accept the fact of his waning importance. A successful and widely publicized invention might compensate for this and Buffington had a flair for invention. The story of his career from 1887 on is largely the story of his patent.

With these observations in mind it is well to proceed with an examination of the *Memories* and the skyscraper drawings. That is just what Buffington requested: "All I ask of the public and press is to examine this book and then try honestly to find if others have invented the skyscraper before I did. Do not guess but know. If you do not find anyone then give me the credit that I deserve."[5]

Buffington's *Memories*

Buffington was working on his *Memories* at the time of his death. The typewritten manuscript has a worked-over appearance with many changes in the text made in ink. Thumbing through the manuscript, it seems apparent that its author had been trying to manipulate the dates in such a way as to make a logical and convincing sequence. The numerous contradictions appearing throughout indicate either that the author was not satisfied with the chronology, or that his memory was very unreliable. It may also be remarked at this point that there are many repetitions in the narrative, and many digressions into the realm of philosophy, most of which, for purposes of brevity and without any sacrifice of facts, must be omitted in this summary.

The text was intended to carry two types of illustration: reproductions of architectural drawings for independent projects, and a group of skyscraper drawings to correspond with the text. The former were in most cases from the pen of Harvey Ellis, many for commissions never received, dating from the period when Buffington's popularity had begun to decline, yet chosen by him as outstanding designs from his architectural career! It cannot be said that Buffington was unaware of his delineator's ability.

For the second type of illustration, notations indicate that Buffington intended to use some or all of the independent set of skyscraper drawings unearthed by E. M. Upjohn, and that he was attempting to work out a consistent dating of the text and drawings.

A cursory examination of these skyscraper drawings in the light of Buffington's other work reveals that the dates and signatures are not to be relied upon. To begin with, a majority of the most important drawings in the general Buffington collection are neither signed nor dated; much less do preparatory drawings bear dates or signatures. Buffington's practice was very careless in this respect. Yet he took great pride in his commissions, often enumerating them for newsmen, and including projects with which he had had but a slight connection. He exhibited his drawings on the walls of his office and had copies of many bound into de luxe volumes. Why would he neglect to sign and date many of these fine water colors and finished drawings, of which he was eminently proud, and then turn around and carefully sign and date small scraps of paper, not once but often twice? This was completely irregular.

In the second place, the signatures on the skyscraper drawings are of differing types, used by Buffington at widely separate intervals during his career. Thirdly, designs indisputably by Harvey Ellis bear dates prior to his association with the Buffington firm. In the fourth place, Romanesque designs and advanced forms of construction are given early dates entirely inconsistent with Buffington's other work. Finally, the drawings fit into no logical sequence, whether according to the development of style, technical design, or actual stage of completeness. It is obvious, however, that the drawings were intended to show the development of the skyscraper designs beginning with the most rudimentary plans, elevations and sections drawn freehand, usually on small scraps of paper, through the more developed and finished studies on tracing paper, to the final designs on tracing cloth and eggshell paper bearing the signature of Harvey Ellis.

The *Memories* opens with a Preface in which Buffington reviews the story of his invention. In the first paragraph is a statement which bears investigation: "P. H. Gunckle [sic], a patent attorney, drew up my first application for patents in 1882 and the final one in 1887. . . ." In commenting upon this, Mr. Upjohn remarked that there was no record of Buffington's having submitted an application for patent before 1887, but suggested that this statement might refer to consultations with patent attorneys rather than a formal application.[6] In checking Buffington's statement with this possibility in mind it developed that there was no "P. H. Gunckle" listed in the Minneapolis City Directory in 1882. After tracing the family of this attorney a daughter, Miss Kathleen E. Gunckel, was located, and she supplied the following information: "My father, Mr. P. H. Gunckel, was a patent attorney in Minneapolis for many years until his death in 1909. My father never had an associate or partner. Mr. Buffington filed an application for a patent for skyscraper in 1887. As far as I know that must have been the beginning of my father's career in Minneapolis. My parents lived in Dayton, Ohio where I was born in 1882. It was not until I was five years old that as a family

4. Buffington was born in 1847 and at the height of his career was only in his thirties.

5. *Memories*, Chapter XVIII.

6. *Op. cit.*, p. 55.

we moved to Minneapolis. I am positive that my father had no law office in Minneapolis at that time. He was associated with a law firm in Dayton, Ohio in those early days. The members of that firm are not living." Hence, it is extremely unlikely that Buffington could have consulted P. H. Gunckel in 1882. As he was anxious to establish this date he would not have omitted the name of any other attorney whom he might have consulted had there been one. This reference to an early application for patent may therefore be discounted completely as evidence in support of Buffington's claim.

Again in the Preface Buffington writes, "I was a member and attended a meeting of the Western Association of Architects that met in St. Louis in 1885, and showed a photograph of my 28-story building designed in 1882, but was roundly laughed at." In a report on the proceedings of the second annual meeting of the Western Association of Architects held in St. Louis on November 18 and 19, 1885,[7] there is no mention of Buffington, except the inclusion of his name in a list of those in attendance. The *St. Louis Globe-Democrat*[8] published Buffington's portrait together with about three sentences regarding his career but his activities at the convention were not mentioned. It is unlikely that Buffington's description of his 28-story building could have been given in the form of a report or it would have appeared in the program and received editorial comment. In October, *The American Architect and Building News*[9] announced a provisional program for the meeting but it did not include a report by Buffington or any mention of his name. Later issues of the same periodical[10] carried two reports on the meeting but neither article mentions Buffington or any address or discussion on the topic of iron building construction. It is interesting to note, however, in the same volume[11] the inclusion of a report on an *extemporaneous* address made at the annual meeting of the American Institute of Architects in Nashville by Mr. Jenney of Chicago entitled: "The Construction of Heavy Buildings on Compressible Soil," with illustrative diagrams on the blackboard.[12]

It should be remembered that even in the event Buffington had discussed his 28-story building at this meeting, it still would not affect his claim, since the meeting in question took place *after* the designing of the Home Insurance Building in Chicago.

7. *St. Louis Republican*, November 18 and 19, 1885.
8. November 21, 1885.
9. XVIII, 1885, p. 169.
10. *Ibid.*, pp. 253, 271.
11. *Ibid.*, p. 219.
12. A statement by F. M. Mann (*Minneapolis Journal*, January 29, 1929) regarding Buffington's activities at the convention was based on information given him by Buffington. Mr. Mann later explained, "The date was before my own active interest in architecture. I only knew him by reputation until I met him personally about the year 1920. . . ." (Letter of July 22, 1941.)

Chapters I, II, and III of the *Memories*[13] are devoted to philosophizing about creation, evolution and progress. Under the latter Buffington discusses architecture:

> There are only two great architectural stages of the past and only one of today . . . called the braced skeleton of metal, the cloudscraper, now called the skyscraper. It first became known in 1888 by the publication of my patents, "Iron Building Construction" and my 28-story building, but several years passed before this construction was understood or buildings were started; now it is used over the entire world. It is more wonderful than all former construction of Civilization.[14]

Buffington's attitude is quite understandable, after his having met with ridicule for publicizing a new construction, only to see it then become one of the principal building systems of his day.

In the next two chapters[15] Buffington assails the U. S. patent laws and patent office and in Chapter VI[16] he discusses the publication of his patent and sketch for a 28-story building:

> After the publication of the description in March,[17] and the publication of the perspective of the twenty-eight story building in June [sic], 1888 . . .[18] not one paper, architectural, engineering, scientific, or of the general press, claimed that such a system was not new nor denied that it was a departure from the old masonry plan. *It was a new construction in 1888 and no building of this class then existed on the face of the globe.* So imbued was I with the possibilities of the invention I had conceived seven years before, that I was not prepared for the abuse and jeers I received.

Fellow architects who knew Buffington back in the eighties still consider his patent a joke, and according to their recollections, it was so considered at the time it was issued. This is corroborated by the following statement made by W. B. Mundie in 1904: "The patent of Mr. Buffington is all wind. I remember well when it first appeared in print many years ago and it was treated as a joke. His patent was obtained May 2, 1888, and four years previous to this time in May, 1884, I was working as a draftsman on the plans of the Home Insurance Building in this City."[19] The same opinion is expressed by Martin Roche of Holabird and Roche, designers of the Tacoma Building: "The Tacoma Building was ready for occupancy May 1, 1889, and the building and planning, which ran back two years or more,

13. They are entitled "This World of Ours," "Elements," and "Architecture."
14. *Memories*, Chapter III.
15. Chapter IV, "Inventions and the Patent"; Chapter V, "Patent Office."
16. Chapter VI, "The Pamphlet and 28 Story Building."
17. *Northwestern Architect*, VI, 1888, p. 23.
18. *Inland Architect and News Record*, XI, no. 8, July 11, 1888, pl. following p. 92.
19. *The Chicago Evening Post*, September 13, 1904. See also the quotation from the unpublished papers of W. B. Mundie in Sigfried Giedion, *Space, Time and Architecture*, Cambridge, Mass., 1941, pp. 140, 141, note 24.

antedate the Buffington patent. . . . The idea cannot be claimed by any one man. It was a development rendered necessary by conditions and grew gradually."[20] Finally, there is the following comment by W. L. B. Jenney: "The Home Insurance Company of New York employed me as architect in 1883 to build for them the Home Insurance Building in Chicago. In 1888 Buffington took out a patent for the use of the construction of the Home Insurance Building in connection with a steel column, constructed of plates of steel riveted together side by side, forming a solid steel column . . . but as his column is a wasteful one, using more steel than any other to accomplish the same result, it has as far as I know never been used, nor is it likely to be."[21] These opinions reflect the attitude of informed members of the profession whose careers were roughly contemporary with Buffington's. His patent was generally considered either impractical or unjustified, or both.

The *Memories* continues with a reprint of Buffington's pamphlet as published in the *Northwestern Architect*. On the basis of this article Buffington may be credited with having publicized more fully the advantages of skeleton construction than had been done up to 1888. As E. M. Upjohn wrote: "His was the work of publicizing the idea."[22] Buffington lists the advantages of skeleton construction as follows:

> Among the various points to be considered, which are of moment, are the facts: First, that this system of construction is cheaper than any other known form of durable building. The labor being considerably less, and the quantity of material employed to give equal or more strength so much less to be almost startling. Next, the time consumed in the erection is infinitely less than by any other method. The major portions of the labor being performed in the shops of the iron workers, and the building being merely assembled on the ground. . . . Again the walls of the building are thinner by half than in a masonry building, thereby effecting an economy of space which is in all cases to be desired, when it can be accomplished without increase of expense.
>
> Thinner walls and the peculiarly light forms of construction also allow of a great amount of light being admitted into the structure without impairing its stability, thereby doing away with the gloomy and vault like interiors, which only too frequently disgrace our large buildings. The facility of lighting, combined with the peculiarities of the internal structure, make the problem of ventilation, that bug-bear of the architect, one of comparatively easy solution.
>
> Having a system of ventilation which is well nigh perfect, it follows that the operation of heating the building is of equally easy execution.
>
> The fact also that iron alone is dealt with, makes it possible to construct as well in winter as in summer, thus increasing the building season from eight to twelve months in the year. The rapidity of construction does not carry with it that element of uncertainty which is apt to be present in ordinary buildings, as there can be no mistakes, every piece of metal used having its proper dimensions, accurately calculated for the functions it has to perform. The structure in addition to its many other advantages, has one of paramount importance: namely, it is absolutely and beyond question fire-proof.
>
> With regard to the arrangement of the interior of this species of building, unlike one of masonry, which has its upright partitions fixed and immutable portions of the structure, the stability of the iron building is not in the least degree dependent upon them, but on the contrary they may be moved about at will and the solidity of the edifice remain intact; the partitions being in point of fact simply permanent screens. The advantages of this method are obvious, as any subsequent alteration can be made, without disturbing the building in the slightest; each floor being for all practical purposes one immense hall which may be divided or sub-divided as the circumstances of the case demand.
>
> From the foregoing it will be seen that this system of construction has an array of advantages which must seriously commend themselves to men who think practically and scientifically upon matters of this nature.

In listing these advantages Buffington was speaking in terms of the system provided for in his patent, one using diagonal bracing and a laminated column. This system would not prove economical but in listing other advantages of skeleton construction he has shown great foresight.

Chapter VII is entitled "The Twenty-Eight Story Building." In it Buffington again describes his building in appearance as well as construction. He begins:

> This building is eighty by eighty feet in plan, and three hundred forty feet to the top of the twenty-eight stories, 85 feet more for the pointed seven stories, or a total of four hundred and twenty-five feet to the crowning glass lookout on the apex.[23] The reason I called it twenty-eight story was because I designed it in February, 1882, which had 28 days.[24] The design of my twenty-eight story building was taken from a column, a solid base, a plain shaft with upward lines like volutes, and a beautiful cap and skyline to finish. The windows are divided by perpendicular upward shadow lines as seen in the columns, adding strength and height to the structure. There will be bands of color which harmonize with the roof tile; the rounded angles and their capping add much to the soft mass of this tapering, ascending building, and as seen by moonlight, or the softer

20. *Chicago Record-Herald*, September 14, 1904.
21. *Chicago Chronicle*, September 14, 1904.
22. "Buffington and the Skyscraper," p. 70.

23. The design of Buffington's skyscraper was altered after application had been made for the patent (Figs. 12 and 14). The ground plan probably was changed to allow for entrances on two sides only and details of the exterior design were modified. Both the patent design and the later scheme show a building 28 stories high to the roof line. In examining the elevation and vertical section described in the patent it will be noted that the elevation *appears* to include one less story than the section due to the disposition of the windows in the upper register of the building. There are not seven additional stories shown in the patent design so Buffington's description must refer to the post-patent design — if it is accurate at all.

24. Accordingly, February 1886 had twenty-eight days. It is more than likely that the calendar basis for the 28-story scheme was an afterthought, there being no evidence that Buffington was occupied with his skyscraper project in February of 1882 or 1886.

shades of other lights, will delight the eye and remain long in the memory.[25]

The aesthetic temper revealed by Buffington's description is interesting to consider. He speaks of the general divisions of the building following the classic divisions of a column, a time-worn formula for design used by eclectic architects. The suggestion of volumes (as expressed by the "soft mass of this tapering, ascending building") was an earmark of the Richardsonian style and prefigured a modern architectural aesthetic. The windows "divided by perpendicular upward shadow lines . . . adding strength and height to the structure" suggest skyscraper design of the 1920's and 1930's with the emphasis upon structural lines. The incorporation of these varying systems within one design might indeed produce chaotic results. It is likely they were "read into" the design after Harvey Ellis had drawn up the elevation for the 28-story building, relying upon his instinctive sense of proportion, rather than upon any preconceived aesthetic formula. In examining the elevation and floor plan for the 28-story building (Figs. 14 and 21) it is apparent that the exterior design received first consideration. It was drawn up in keeping with the popular style of the period, and except for its height was not unlike buildings of masonry construction erected in the late eighties. Buffington's braced skeleton construction was to be fitted within the exterior shell of a Richardsonian office building.

Chapter VIII of the *Memories*[26] is devoted to a reprint of the patent, with a vituperative introductory paragraph on the U.S. patent laws.

Chapter IX[27] is the key chapter in the manuscript, containing Buffington's own history of the invention. The significant passages, first quoted by Upjohn,[28] have been further analyzed in Mr. Tselos' accompanying article. It suffices here to note only the chief facts: Buffington writes that he was inspired by a passage in Viollet-le-Duc's *Lectures on Architecture* to work on the problem, and in the winters of 1880–81 and 1881–82 searched for systems or patents on iron building, conceived of the metal skeleton with shelf, and worked out the technical details of the construction. In the winter of 1881–82, he writes, he also worked out the exterior design of his proposed building. In the latter passage, it is worth noting, the typewritten dates in the text are 1883–84; the typed numerals 3 and 4 are erased and superplanted by 1 and 2, to read 1881–82. In quoting from the *Memories*, Upjohn used the dates 1883–84.[29] In this same passage Buffington says: "I consulted an attorney and laid the matter before him, and he drew up my first application." Twice elsewhere in the *Memories*[30] he speaks of making his first application for patent in 1882. Furthermore, he tells us that he decided on a height of twenty-eight stories for his tower because the building was designed in February, 1882, a month having twenty-eight days. It seems apparent that in Buffington's revised account the following chronology is intended: first conception, "winter of 1880–81"; working out of structural details followed; exterior design made in February, 1882. In other words, it is probable that the essential conception was rather fully developed during the calendar year 1881.

The account then skips to the year 1886. The Boston Block burned on April 17, 1886, and this event impelled him to resume his preoccupation with the problem of iron construction. He made his final designs in the winter of 1886–87 and filed application for patent on November 14, 1887. On the basis of this account, Buffington worked off and on for nearly seven years on the development of his invention.

The Skyscraper Drawings

It is possible now to consider Buffington's signed and dated skyscraper drawings in their relation to this account. The first step is to examine each drawing carefully. For the sake of clarity the drawings may be divided into four classifications: elevations, plans, vertical sections, and a special group of plans and sections showing the use of grillage footings. The drawings in each group may be numbered progressively, beginning in each case with the one which appears to be the earliest.

Elevation 1 is a freehand pencil drawing on tracing paper 4⅜″ x 6″. It shows two columnar buildings. There are two small plans, one square and one circular. It is signed and dated with pencil in script style: *L.S.B. 1882*.[31]

Elevation 2 (Fig. 1)[31a] is drawn freehand in pencil on scratch paper 11⅞″ x 8 15/16″ and shows two perspectives, one of a 50-story building and one of a 100-story building. A square ground plan and rudimentary plans for a typical story are indicated. It is signed and dated twice with pencil in printed initials and numerals: *L.S.B. 82*; and again with

25. The imagery is confused here. Buffington seems at once to be describing the columnar and pointed projects as represented by Fig. 1 and Fig. 14. When the columnar formula was translated into Richardsonian terms by Ellis the classic divisions of base, shaft, and capital were retained. This may explain the apparent discrepancies though it should be remembered that Buffington was writing his *Memories* as late as 1930 and 1931, nearly half a century after his skyscraper designs were first worked out.

26. Chapter VIII, "The United States Patent Office."

27. Chapter IX, "Steel Construction As I Know It 1880."

28. *Op. cit.*, pp. 55–57.

29. *Ibid.*, p. 56.

30. Preface and Chapter XIV.

31. As the columnar designs are well illustrated by the 100-story project in Elevation 2 (Fig. 1), and the signature is of a recurring type, the photograph of this drawing is omitted.

31a. The original size of the Buffington drawings has been reduced in the illustrations. Figs. 1, 10, 16, 18, 19, 20, 22, 24 are in addition trimmed versions of the original sheets of paper, though nothing of any importance has been eliminated.

the date *82* in the lower left corner of the frame around the 100-story building.

Elevation 3 (Fig. 3) is a freehand drawing in pencil on scratch paper 4 9/16" x 5 1/16". It is a perspective of a building which begins to resemble the 28-story building. It is of a Romanesque type with round corner towers. It is signed and dated twice with pencil: in script initials and four numerals, the last of which is illegible, *L.S.B. 12/8–;* and with printed initials and date, *L.S.B. 12/81* in the upper right corner of the paper.

Elevation 4 (Fig. 15) is a pencil drawing on tracing paper 10 1/8" x 18 7/8", watermarked Crane & Co. Dalton, Mass. 1885, and shows a Romanesque tower design. This appears to be a development of Elevation 3.[32] It is signed and dated with pencil in script style: *L.S.B. 86.*

Elevation 5 (Fig. 6) is an ink drawing on eggshell paper 22 1/16" x 33 5/8" and shows a combination elevation and vertical section of a Romanesque building twenty-eight stories to the apex, with three plans: A ground floor plan having four entrances and a typical floor plan (as in Plan 4), plus a special floor plan. It is signed and dated in *pencil* with printed initials and numerals: *L.S.B. 83.*

Elevation 5a is a blueprint of Elevation 5 *but the initials and date are not reproduced.* However, it is signed with pencil in script style: *L.S. Buffington Architect.*

Elevation 6 (Fig. 16) is in pencil on tracing paper 6 9/16" x 8 5/8" watermarked Crane & Co. Dalton, Mass. — and is a perspective of a tall Romanesque building. It represents another step toward the final design.[33] It is signed and dated with pencil in script style: *L.S.B. 86.*

Elevation 7 (Fig. 10). This is in pencil on tracing paper 18 7/8" x 29 15/16" watermarked Crane & Co. Dalton, Mass. 1885. It is a perspective view and represents a development of the exterior design approaching the final design for the 28-story building. It is signed and dated with pencil in script style initials and numerals: *L.S.B. 1886.*

Elevation 8 (Fig. 17) is a water color 34" x 56 1/2" showing a perspective of the 28-story building. It occupies a corner site as in all the perspective studies, except that of the isolated columnar towers in Elevations 1 and 2. It is flanked by a group of buildings whose designs were produced by the Buffington office: on the extreme left, a corner of the rebuilt Boston Block; on the extreme right, a corner of the West Hotel; the other buildings represent competition designs by Harvey Ellis. It is signed in script style: *Harvey Ellis Del. '87,* and in printed letters and script: *L. S. Buffington Architect 87–.*

Elevation 9 (Fig. 14) is in ink on eggshell paper 20 1/16" x 32 13/16" and is the perspective view of the Romanesque 28-story building which was reproduced in the *Inland Architect,* July, 1888. It represents a slight modification of the design in Elevation 8 of 1887. The bottom and top of the drawing have been cut off so that the original signature: *Harvey Ellis, Del, 1888;* and the printed label: *L.S. Buffington Architect, Minneapolis, Minn. A.D. 1888* as shown in the *Inland Architect,* do not appear.

The next group to be considered is the floor plans.

Plan 1 (Fig. 18) is the least developed and is drawn in soft pencil on scratch paper 4 5/8" x 6 1/8" and shows two framing plans. These are freehand drawings for a skeleton construction building of a design essentially like Buffington's Romanesque 28-story building. The plans are roughly square with the pavilioned angles indicated by rounded corners. This paper is dated with pencil in script style: *1885.*

Plan 2 (Fig. 19) in pencil on scratch paper 5 13/16" x 8 1/2" is a ruled ground plan for a design like the Romanesque 28-story building. It is dated in pencil in script style: *1886.*

Plan 3 (Fig. 20) is in pencil on scratch paper 5 7/8" x 8 1/2" and is a ruled framing plan for a typical floor of the 28-story building. It is dated with pencil in script style: *1886.* There are also three plans in ink and pencil on drawing board showing technical details of the frames, with I-beams and built-up columns, also elevator tracks. These are not signed or dated.

Plan 4 is in ink on tracing cloth showing ruled plans for a ground floor with entrances on four sides as shown in the patent, and for a typical floor of the 28-story building design. This is not signed or dated. These plans are reproduced on Elevation 5 (Fig. 6).

Plan 5 (Fig. 21) is in ink on tracing cloth 22 15/16" x 24 3/8". It is a ground floor plan for the Romanesque tower design, with entrances on two sides only. It is signed and dated with ink in script style: *L.S. Buffington, Architect, 1882.* Blueprints of this plan are missing.

Plan 6 (Fig. 22) is in ink on tracing cloth 22 3/4" x 24 15/16" and represents a typical floor. It appears to be a companion to Plan 5. It is signed with pen in script: *L.S. Buffington, Architect.* It is not dated.

Plan 6a is a blueprint of Plan 6 showing the signature: *L.S. Buffington, Architect.*

The sections are as follows:

Section 1 (Fig. 23) is drawn freehand in pencil on scratch paper 7" x 10 1/8" and is a crude drawing indicating a skeleton frame for a tall building with sloping sides and a pointed roof. Diagonal bracing is indicated. As in several other sketches, many details have been added with a soft pencil. Here these include shelves, a laminated column, and the

32. Elevation 4 is related stylistically to the 50-story building in Elevation 2 (Fig. 1) and to Elevation 3 (Fig. 3) in that it includes the domed top. The dormer indicated in this drawing appears again in Elevation 5 (Fig. 6) and in the patent drawing (Fig. 12).

33. Elevation 6 shows a modification of the exterior design as represented in Elevations 4 and 5 (Figs. 15 and 6) and the patent, and prefigures the water-color and ink designs of 1887 and 1888.

date. This sketch bears the date written with pencil in script style: *1885*.

Section 2 (Fig. 2) in pencil ruled on tracing paper 11 3/16" x 17 1/16", watermarked Crane & Co. Dalton, Mass. 1879, is for the basement, first and second floors. It shows a stone footing, cast shoe, cast column, brace and shelf. In the upper right-hand corner appear a partial elevation and a thumbnail plan for a columnar building. This drawing is signed and dated with pencil in script style: *L. S. B. May 1882*, and is labeled: "Elevation of Iron Construction." The watermark is visible beneath the signature. There are also three sections in pencil or ink on drawing board showing built up or laminated columns, bracing and shelves, which are neither signed nor dated and which represent a technical development of the construction indicated in Section 2.

Section 3 (Fig. 24) in pencil on tracing paper 18 7/8" x 30", watermarked Crane & Co. Dalton, Mass. 1886, shows the stairs, elevator and window arrangement for 27 stories.[34] It is dated in pencil in script style: *1886*.

Other plans and sections show elaborate grillage foundations and are not signed or dated except one section (Fig. 9) in ink on drawing board 22 9/16" x 28 7/16" with the initials and date printed in ink: *L.S.B. 82*.

* * * * *

It is now possible to consider the relationship which these drawings may bear to Buffington's written account. Following the text: in the winters of 1880–81 and 1881–82 Buffington conceived of a braced metal skeleton with a shelf for supporting masonry walls. He spent 1881 and 1882 working out the technical details of this system, and designing a 28-story building to embody this construction. He made his first application for patent in 1882. There is no drawing dated 1880 and only one drawing dated 1881. That is the preliminary Romanesque tower design, Elevation 3 (Fig. 3).

There are a number of drawings dated 1882. Section 2 (Fig. 2) in pencil on tracing paper, watermarked 1879, is the most interesting. If the date and signature are authentic they would corroborate Buffington's account. This drawing will be dealt with subsequently. There are two elevations in pencil, Elevation 1 on tracing paper and Elevation 2 (Fig. 1) on scratch paper; the first shows tall buildings of columnar design, and the second shows one columnar building and one which indicates a modification of the columnar form. There is Plan 5 (Fig. 21) showing a ground floor plan with two entrances for a Romanesque design; and there is the vertical section with grillage footings (Fig. 9) dated 1882 with the braced skeleton and built-up column.

It is anachronistic to find Buffington using a Romanesque design for a building dated 1881 or 1882. An exhaustive search through local records and a careful study of Buffington's commissions as well as the remaining drawings in the Buffington collection reveal that while previously influenced to some extent by Richardson's designs, Buffington's earliest typical Romanesque building was the First Unitarian Church, under construction in 1885. It would be strange if Buffington used the Richardsonian Romanesque for his tower design in 1881 or 1882 and then neglected it completely for three years thereafter in his other work. The dates on Elevation 3 (Fig. 3) and Plan 5 (Fig. 21), both for Romanesque designs, must be incorrect.[35] It is to be noted also that Elevations 1 and 2 (Fig. 1) dated 1882 suggest stages in the design which are less developed than that shown in Elevation 3 (Fig. 3) dated 1881!

The section with grillage footings (Fig. 9), bearing the date 1882, belongs to a later group of studies in which an elaborate system of grillage is used. This group of drawings was not a part of the original skyscraper drawings. The patent does not indicate the use of grillage footings, nor do any of the preparatory drawings. In collecting the skyscraper drawings Buffington mistakenly included this one and since it showed the use of Buffington's iron construction and bore a date, it was published with the others by Mr. Upjohn. The character of the signature on this drawing will be discussed subsequently, but from the standpoint of construction, this paper should be dismissed completely as having any relation to Buffington's claim or to the skyscraper drawings.

Continuing with the chronology, Buffington says there was a lapse in his work on iron construction after 1882 and that he took up the problem again in the winter of 1886–87. Before going on to this date there is the ink drawing on eggshell paper, Elevation 5 (Fig. 6) dated 1883. It shows an elevation and vertical section of the Romanesque building (again, if the date is accepted, stylistically at least two years ahead of Buffington's other work) with three plans, signed and dated in pencil with printed initials *L.S.B. 83*. It is curious to see a finished ink drawing crudely signed and dated with pencil; moreover the blueprint of this drawing does not show the initials or date! The dating is contradictory also in that the drawing represents a near final design for the 28-story building; it is a development of preliminary designs dated 1885 and 1886, Plans 1, 2 and 3 (Figs. 18, 19, 20) and it incorporates details shown in Section 3 (Fig. 24) dated 1886.[36]

There are a number of drawings dated 1885 and 1886.

34. Section 3 corresponds in all but the number of stories indicated, to the section shown on Elevation 5 (Fig. 6) and thus could be a preliminary drawing to Elevation 5 or better, to later modifications of the 28-story design.

35. As the patent shows a ground plan with entrances on four sides, the modified plan with entrances on two sides only probably postdates the patent and corresponds to the design seen in Elevations 8 and 9 (Figs. 17 and 14).

36. Cf. note 34.

The sketchy Section 1 (Fig. 23) is dated 1885; also Plan 1 (Fig. 18), for an iron construction Romanesque building. It should be remembered that these two drawings are preliminary to Elevation 5 (Fig. 6) dated 1883 and Plan 5 (Fig. 21) dated 1882. The remaining drawings dated 1886 are: Section 3 (Fig. 24) showing the stair and elevator arrangement for the Romanesque building as illustrated in Elevation 5 (Fig. 6); Plans 2 and 3 (Figs. 19 and 20) which develop the design of Plan 1 (Fig. 18), 1885; and Elevations 4, 6 and 7 (Figs. 15, 16 and 10) developing the exterior design of the Romanesque 28-story building as it is finally represented in the patent and watercolor and ink drawing by Harvey Ellis.

Elevation 8 (Fig. 17), the water color signed and dated 1887 by Harvey Ellis, is nearly reproduced in the ink drawing, Elevation 9 (Fig. 14), originally signed by Ellis and dated 1888. Some time after, the signature and date were cut off Elevation 9, the drawing was again photographed, Buffington's name and the date 1885 were added and many small prints showing the new date were made and circulated by Buffington. Interesting in this connection is the information supplied by Frederick M. Mann:

"The date shown on his rendered drawing of his 'Twenty-eight story building,' 1885, as I remember, was, I feel quite certain, added subsequent to the time the drawing was made; I had the impression it was added after I first saw the drawing. I think I expressed regret to Mr. Buffington, that, in view of the controversy raging, the drawings had not been dated."[37]

It is evident that the dates on these skyscraper drawings are, with two exceptions, completely undependable. This conclusion is strengthened by the opinion of Mr. Thomas J. Caton, nationally known handwriting expert and consultant for the Federal Bureau of Investigation who, after a careful examination of the skyscraper drawings and the entire Buffington collection including letters written and signed by Buffington over a period of years, testified:

"I made a careful and somewhat extended examination of the longhand writing of Mr. L. S. Buffington, architect, and reached the following conclusions:

"1. Up to the last few years of his life, Mr. Buffington wrote a handwriting of the old Spencerian style. He was very skillful in writing his signature. It was written with a rapid, facile, and highly characteristic style of letters. He was somewhat inclined to use flourishing or extra strokes of the pen in the formation of the capital letters in his name.

"2. Later in life his writing, *which I examined very extensively*, shows that he had changed, radically changed, the characteristic forms of the letters in his signature. He had also dropped the rapid and facile writing of his signature. The signatures later in life were slowly and almost painfully drawn with considerable alternating between light lines and shaded characters. Therefore, an examination of the signature, L. S. Buffington, 1882, which is on a tracing cloth, floor-plan design of a 28-story building (Plan 5); and the signature, L.S. Buffington on another floor plan for a 28-story building (Plan 6); and the signatures L. S. Buffington (Elevation 5a); were made by him very late in life, and not in 1882.

"His signature on tracing paper, the paper made by Crane and Company, Dalton, Massachusetts, 1879, subscribed as 'Elevation of Iron Construction' (Section 2) was also written by said L. S. Buffington late in life, having the characteristic letter forms of his signature writing as previously described on the other two documents. Respectfully submitted, T. J. Caton."

All of the remaining drawings are signed in the script initials and numerals used by Buffington toward the end of his life except the two final elevations of 1887 and 1888 both originally signed and dated by Harvey Ellis and the three drawings signed with printed initials: Elevation 5 (Fig. 6), which represents a near final design for the Romanesque 28-story building and coming from the pen of Harvey Ellis, could not date before his association with the firm in 1886;[38] Elevation 2 (Fig. 1) which includes the modified columnar design for a 50-story building markedly suggestive of early Romanesque studies, and hence anachronistic with Buffington's other work by at least three years, and the section with grillage footings (Fig. 9) belonging to a separate group of drawings. It should be added that Buffington *rarely* signed drawings with printed initials until after the turn of the century — never a group of drawings for one project made at separate intervals of time. There are some drawings of the 1890's made by Harvey Ellis and signed with the initialing used by Buffington later in life; hence it is more than likely that these, as well as the three skyscraper drawings, were so inscribed long after Ellis had left the Buffington office.

The type of paper used by Buffington for certain key drawings of the skyscraper series has been taken as a means for establishing their dates. Mr. Upjohn considered the watermark, 1879, on Section 2 as corroborating the early date on the drawing.[39] This is doubtful. Scattered among the drawings which came to the University of Minnesota Library from the Buffington household were many pieces of unused paper. It must be said that none of the tracing paper bore a watermark earlier than 1880, and there is no drawing in the general collection made after 1880 bearing a

37. Letter of July 22, 1941.

38. Cf. p. 13. No drawings by Harvey Ellis appear in the Buffington collection bearing a date earlier than 1886. Also see Fitzpatrick, "The Origination of the Steel Skeleton Idea," *American Architect*, XCII, 1907, p. 15; and Mr. Tselos' interesting observations on stylistic relationship of this design to Richardsonian prototypes on page 9 of the accompanying article.

39. "Buffington and the Skyscraper," p. 65.

watermark before that date. This does not preclude the possibility of there having been a piece of paper watermarked 1879 in Buffington's possession long after 1882.[40] There was also a quantity of unused scratch paper. As some papers age more rapidly than others it is impossible to estimate how old any of this might have been. It is notable that Buffington either did not use scratch paper for preliminary studies of any kind during the years of the firm's greatest activity, or if he did, the scratch paper studies have not been preserved for any but the skyscraper series! There is a noticeable use of scratch paper among his drawings of the twentieth century, however. Among the pages of the *Memories* were sketchy drawings, sometimes on loose sheets of scratch paper, sometimes on typewriter paper, with columnar and Romanesque tower designs to suggest illustrations which Buffington wished to have used with the text. These were drawings made in the nineteen thirties. They were not unlike the signed and dated drawings on scratch paper.[41] It seems evident that the paper used for the drawings cannot be considered as a basis for relating or dating them.

The extensive freehand use of soft pencil to bring out special features or details, including signatures and dates, on all of the scratch paper drawings is suspect and can be detected in the photographs (Figs. 1, 3, 18, 19, 20, and 23) It has been used also for the notations and the telltale signature on Section 2 (Fig. 2), all in the script style characteristic of Buffington's writing during his late years, and appears as well in the freehand drawing at the top of this ruled section.

Two drawings only can definitely be ascribed to the late 1880's, Elevations 8 and 9, signed and dated originally by Harvey Ellis. It seems logical to accept Elevations 3 through 7, which unmistakably show his coloristic draftsmanship, as dating between 1886 when Ellis' work first appears among the Buffington drawings, and 1888 when the patent was granted and the 28-story building designs were published.[42] Plans 4, 5, and 6 may be original studies corresponding to late stages of the 28-story building design or may reproduce others of this period which have not been preserved. Section 2, with the exception of the freehand adumbrations, could be assigned to the period 1886–1888. However, the early watermark is suspicious rather than convincing and the date has no value.

So it is that there is no drawing which illustrates Buffington's system for skeleton construction that can be proved to pre-date the designing or erection of the Home Insurance Building in Chicago (1883–1885).

It is obvious that the extant set of skyscraper drawings is in no way complete. There must have been innumerable studies for so large a scheme which have not been preserved.[43] This accounts in part for the difficulty in relating the remaining drawings. Buffington realized the importance of what drawings remained. He collected them, possibly filled in some gaps with new drawings, and for purposes of record signed and dated them from a faulty memory. If Buffington began thinking in terms of iron construction in 1883 and 1884, as Fitzpatrick suggests he might have, he started serious work on the scheme after Ellis' arrival. Ellis may be credited with the working out of the exterior design of the 28-story building but the details of construction were probably thought out by Buffington. If he considered the construction of the Home Insurance Building, it is doubtful that he thought of it as threatening the value of his patent. The construction of the Home Insurance Building was an expedient, not a completely worked out system. Buffington did not make any claims against Mr. Jenney until his patent had been granted, until his system proved impractical, and until Jenney was hailed as the inventor of the skyscraper instead of Buffington. Then the matter became an obsession, as numerous statements made by Buffington to the press testify, and the importance of the dates on the drawings was made clear to him. As Mr. Mann suggests, they were doubtless put on after 1920.

The remaining chapters of the *Memories* merit some attention, particularly those which contain testimonials or have been quoted from by Mr. Upjohn. After comments on invention, genius, early uses of iron and steel in Chapters X, XI, and XII,[44] Buffington turns in Chapter XIII to the translation from Viollet-le-Duc which he said inspired his development of iron construction. It is labelled "Translation 1880." This includes the portions quoted by Mr. Upjohn[45] and continues:

40. Cf. Tselos, p. 7, in which he discusses the value of the watermark in dating this drawing. There are four additional skyscraper studies on watermarked paper: Elevation 4, 1885; Elevation 6, date cut off; Elevation 7, 1885; Section 3, 1886.

41. In the preceding article (p. 7) Mr. Tselos has concluded: "Moreover the nature and appearance of the papers upon which the 50-story, the 100-story and the Neo-Romanesque projects are drawn are identical and confirm the stylistic affinity between the 50-story and the Neo-Romanesque schemes. Since the latter cannot be earlier than 1884, the columnar projects must also be dated about 1884. From this follows the conclusion that the *Elevation of Iron Construction*, which shows advanced stages of the columnar scheme, could not have been made long before that approximate date, despite the testimony of the dated watermark." It is unlikely that the kindred appearance of two pieces of scratch paper, both supposedly over fifty years old, can be taken as proof of their having been used within two or three years of each other.

42. Cf. note 38.

43. Many Buffington drawings were destroyed in successive movings from one house to another before the time Mr. Upjohn effected the donation of the skyscraper drawings to the University of Minnesota Library.

44. Chapter X, "Commendation, ipso facto"; Chapter XI, "Ideas — Thoughts"; Chapter XII, "The Use of Iron — The Skyscraper."

45. *Op. cit.*, p. 56. See also references to date of translation, pp. 49 and 65.

> What is supported by the column, therefore, must not at the same time rest on the wall, for there will result a difference of level between the two supports, and consequently a disturbance of whatever is supported. *Hence we conclude that the rigid support ought to be placed on the outside, and the masonry inside*; for then the sinking of this latter would only result in directing the pressure towards the center of the building. But if we put cast-iron columns against the wall of a building inside, and rest iron trusses, e.g., on the columns and wall, we run great risk of causing partial and general dislocations in the building. If, therefore, we undertake to encase an iron structure with a shell of masonry, that shell must be regarded only as an envelope, *having no function other than supporting itself, without lending any support to the iron, or receiving any from it.* Whenever an attempt has been made to mingle the two systems, mischief has resulted in the shape of dislocations and unequal settlements.

The underlining was intended by Buffington to indicate provocative sentences which had set his imagination to work on the iron building construction. The year in which he may have been so "inspired" would have no bearing on his claim, however; many architects may have been set to thinking by this same passage. It is only the tangible results of an inspiration which can be accepted as determining one's right to the title of inventor.

Chapter XIV, entitled "Remember These Facts," has been quoted in part by Mr. Upjohn.[46] It contains repetitions of earlier statements plus a good many misstatements such as the following: "6 — All skyscrapers did use the laminated column." "14 — The ancients' great buildings were only one story high." "20 — The Tower Building, New York, and the Tacoma and Home Life Insurance Buildings, Chicago, are just solid brick buildings, with cast iron columns and iron I-beams, but no braced skeleton or shelves to support the veneer. Additional stories were built many years later on top of the solid brickwork and created the impression they were skyscrapers; they were not." (None of these buildings did use the combination shown in Buffington's patent, to be sure, but to speak of them as having solid walls "with cast iron columns and I-beams" is in no sense an accurate description of their construction. It had been pointed out to Buffington that the Home Insurance Building used iron beams to support the exterior walls at the fourth, sixth, and ninth stories at the time he was attempting to protect his patent rights in the courts. He refused to recognize the importance of the Home Insurance Building, yet he claimed that Jenney had worked out his system of construction after familiarizing himself with Buffington's use of iron in the construction of the Boston Block.) "33 — First application made in 1882." Most of the other points made in this chapter are in regard to the patent laws. One should be of particular interest; "32 — The patent law should be all rearranged and in time it could be made to pay much of the expense of the Government"!

Chapter XV, entitled "Questions — Answers," has been quoted from briefly by Mr. Upjohn.[47] It is well to examine some of the statements:

> Another building that is sometimes mentioned as preceding my invention is the . . . Home Life Insurance Building, erected in Chicago in 1885, built after I showed my 28-story building in St. Louis to the Western Association of Architects in 1885.
>
> I saw this building while under construction many times and went to the department of building and looked over the plans. Mr. Jenney made no claims at this time to its being a skeleton of steel for he knew nothing about such a construction, but waited four years, or until my patent was granted in 1888. He said nothing about looking over the Boston Block, Minneapolis, or the explanation I gave him.
>
> The Boston Block, Minneapolis, built in 1880 by me has practically the same construction.
>
> In the lobby of the West Hotel in Minneapolis, completed in 1883, are eight brick piers, two feet square, too large to be of hollow bricks, with a round ribbed cast iron column in the center of each pier; wrought iron I-beams or shelves were fastened against these iron columns. The brickwork of the piers, and between them, was carried on these shelves.[48]

Buffington admits he saw the Home Insurance Building while it was under construction and examined the plans. Jenney made no claims in 1885 that his building had an iron skeleton but he and other members of the profession thought its construction of sufficient importance to merit a verbal and written description. Jenney was occupied with the practical nature of the problem which in turn brought about a solution through the use of iron construction. Buffington, characteristically more dramatic and less practical in his thinking, approached the matter as an abstract problem, working for a patentable system that turned out to be extravagant and therefore unusable.

Buffington does not state in what year Jenney saw the Boston Block. However, it is well known that the types of construction used in the Boston Block and the West Hotel were not unusual in 1880 and 1882.[49] When Buffington erected these buildings he boasted of their height, their magnificence, their showiness and, in the case of the West Hotel, of his use of fireproof tile and the extensive use of iron (Fig. 5a). Never did he boast of his revolutionary use of iron until years later when he was trying to establish his

46. *Ibid.*, p. 55.

47. *Ibid.*, p. 53.

48. When these two buildings were razed, the Boston Block in 1943 and the West Hotel in 1940, it could be seen that the construction was as indicated in the plans (University of Minnesota Library) and described in the *Memories*, though both buildings had been somewhat remodeled after they were first built. I am indebted to Mr. Buford Pickens of Detroit, Michigan, for the accompanying photograph (Fig. 5a) which shows the construction and columns used in the lobby of the West Hotel.

49. The designing of the West Hotel dated back to 1882.

priority as the inventor of skeleton construction. If his ideas were sufficiently well formulated to make application for patent in 1882, as he claimed, why did he not experiment with the new construction in his buildings of the period? Certainly the answer is not that Buffington was trying to keep his ideas secret.[50] He courted publicity. He himself said he discussed his invention with friends, and in 1886 and 1887 it was common knowledge that he was working on a new system of iron construction which he hoped to have patented.

Chapter XVI of the *Memories*[51] is given over to clippings and articles which appeared in professional journals and the press regarding Buffington's work and his invention. They reflect the ridicule, the speculation, and in some cases the commendation which greeted Buffington when he announced his patent and circulated designs for his 28-story building. The fact that laymen, as well as some members of the architectural profession, were astounded by his invention obviously is not proof that ". . . no building of this class then existed on the face of the globe." It does indicate, however, that skeleton construction as such had not been widely publicized in either professional or popular journals. The 28-story building was used as a most effective publicity device. Buffington later admitted he never really intended to put it up.[52]

In 1892 Buffington began to press his claim and The Buffington Iron Building Company was incorporated. Its joint purpose was the manufacture of parts to be used in skeleton construction as described in the Buffington patent, and the prosecution of claims for the infringement of the patent. In the *Chicago Tribune*[53] Buffington was quoted:

> I do not expect to have much trouble to get my just dues in this respect. I compute that those who have used this plan have made a saving of not less than 15 per cent. on the total cost of construction, and I believe that having profited so greatly through my ideas they will gladly make the proper amends. I am confident that I can easily convince them of the justice of my claims, and if they refuse to do the right thing I am equally certain that any court in the land will see that I get my just dues. From the limited data I have at hand I find that since 1890, when the first skeleton of steel building was created more than $100,000,000 has been expended in structures of this nature, and in twenty years I estimate that more will have been expended than would pay the national debt.

After two chapters[54] devoted to clippings which appeared with the announcement of the incorporation of the Iron Building Company, Buffington lists in Chapter XIX fifteen "clients" whom he states ". . . were conversant with my invention and talked with me about it and advised me to get it patented." None of the men listed is living now.

Chapter XX is given over to "Other Opinions" some of which have been quoted by Mr. Upjohn.[55] Most of them are of no significance as far as Buffington's claim is concerned. Typical are the opinions of Mr. P. H. Gunckel of Minneapolis: "I procured the patent and know of its great possibilities," and that of Mr. James J. Egan of Chicago: "In the older method of construction, masonry was the main supporting body, but in the new method the metal supports the masonry on shelves fastened to this skeleton at each story." The opinion of Mr. Eugene F. Osborn, of Chicago, is the only one in which a date prior to 1888 is mentioned: "I saw many of your studies in 1882 . . .," but there is no mention of what the studies were, or for what project they were made. They might have been studies for the West Hotel, the State Capitol or for Sam Gale's "tenements"!

The remaining portion of the *Memories*, Chapters XXIII–XXVII, contains excerpts from laudatory accounts written by Buffington's "friends" as he calls them. They depend for their narrative on Buffington's own statements and upon previously published material reiterating his claims. The essay of Mr. A. J. Russell[56] who is still living in Minneapolis was based on the information given the writer by Buffington himself. The same was true of Mr. C. M. Loring's account[57] which follows in Chapter XXV of the *Memories*. Also included is an article by Mr. John J. Nutt.[58] In this article as rewritten in the *Memories*, Buffington has systematically cut out Mr. Jenney's name wherever it appeared in the original article as in the sentence, "Variously credited to Jenney of Chicago. . . ." Buffington intended the sentence to read: "Variously credited to others. . . ." The fourth and final account reprinted by Buffington, that of Grace Polk,[59] has also been "edited" to suit Buffington's taste. He has deleted such phrases as ". . . nor has he ever built one," and he has substituted the date 1882 for 1883 as given in the original article in the sentence: "In the winter of 1883 Mr. Buffington had drawn complete plans for the interior construction of a steel framework building and had applied for a patent."

With an "Adieu" Buffington closes his *Memories:*

> Such is the simple story of steel construction as I know it since 1880 and the part I have taken as inventor. Every word is taken from indisputable records. I have been surprised that those

50. As suggested by Mr. Upjohn, *op. cit.*, p. 55.
51. Chapter XVI, "Clippings 1888."
52. *Chicago Tribune*, December 4, 1892.
53. *Ibid.*
54. Chapter XVII, "Buffington Iron Building Company"; Chapter XVIII, "Clippings 1893."
55. *Op. cit.*, p. 54.
56. Chapter XXIV, "The Father of the Skyscraper," reprinted from the *Minneapolis Journal*, July 29, 1932.
57. Chapter XXV, "Apostle of Steel Building Construction," reprinted from the *Minneapolis Sunday Tribune*, August 4, 1907.
58. Chapter XXVI, "Recognition at Last to Originator of Skyscraper," reprinted from the *Minneapolis Journal*, May 3, 1907.
59. Chapter XXVII, "Sire of the Skyscraper," reprinted from the *New York Times*, November 21, 1926.

who finally have understood what the facts of the invention were, were willing to give the credit to others, or to express the belief that the "skyscraper" was not my invention, but, like Topsy, "just growed."[60]

In spite of the lengths to which he had gone to prove his claim, he still apparently had little hope of receiving the credit he felt due him for he added the lines:

> It sounds like stories from the land of spirits
> If any man obtains that which he merits,
> Or any merit that which he obtains.[61]

Surely the merit of having understood the great possibilities of skeleton construction as early as 1888 and having been primarily responsible for publicizing its advantages and principle of construction[62] is a great one, and represents as large a share of the credit accruing from the development of this new method of building as can be accorded to any one man.

60. Chapter XXVIII, "Adieu."
61. Samuel Taylor Coleridge: *The Great Good Man.*
62. Upjohn, *op. cit.*, p. 70.

It is unfortunate, but natural, that Buffington and his contemporaries laid so much stress upon priority of conception, a doubtful honor at best. When he realized that Jenney had already employed the principle of skeleton construction in designing the Home Insurance Building, his hasty efforts to complete the preparation for his patent resulted in the impractical scheme that brought him jeers instead of praise. He felt it necessary to minimize the honest achievements of other architects and assert the priority of his own to prove his point. Thereby he antagonized fellow members of the profession and postponed the impartial evaluation of his importance.

In the absence of any proof, the premise that Buffington "first conceived this revolutionary construction"[63] must then be dismissed.[64]

63. *Ibid.*
64. An interesting parallel to the theories of Frederick Jackson Turner is found in the evolution of skeleton construction in Chicago during the 1880's where exigencies of environmental and economic conditions were met by local architects.

THE PALIOTTO OF SANT' AMBROGIO AT MILAN

STAFF-SGT. GEORGE BISHOP TATUM, U.S.A.[1]

In 1916 Arthur Kingsley Porter wrote of the Paliotto of Milan: "Probably no monument in Europe offers greater archaeological difficulties or has given rise to more controversy than this golden altar."[2] The controversy of which Porter spoke had its inception twenty-five years before with the publication of Kondakov's *Histoire et monuments des émaux byzantins*.[3] While implying the possibility that some at least of the enamels might be of Carolingian date, Kondakov rejected for the altar as a whole a date as early as the ninth century, and suggested instead an origin in the twelfth. The doubts which Kondakov had briefly expressed regarding the date of the Paliotto were soon restated at greater length and with more precision by other writers. Of those who followed Kondakov's lead in rejecting the traditional ninth-century date, M. G. Zimmermann was probably the scholar whose opinion has exerted the widest influence. Zimmermann's emphatic statement that the Paliotto could not have been executed in the ninth century is best understood when taken as a part of his general work on North Italian sculpture.[4] In approaching the problem of the Paliotto, Zimmermann postulated that its character must agree with his so-called "Lombard style" which he believed to be the sole prevailing style in North Italy during the ninth century. When he found no parallels for the Paliotto among Lombard works of that period,[5] he concluded that the original Carolingian altar had been destroyed when the cupola of Sant' Ambrogio fell in 1196. The present altar became thus in his opinion a thirteenth-century copy of the ninth-century original.

In the fifty years since Kondakov and Zimmermann first suggested a twelfth-century date for the Paliotto a score of other writers have added their opinions, some, like Molinier,[6] Deckert,[7] and Venturi,[8] defending the earlier date, others, like Bock,[9] Marignan,[10] and Porter[11] denying it.[12] The result of this half century of discussion has been partially to discredit the Paliotto as a Carolingian work without at the same time proving another time or place of origin which could gain wide acceptance. Thus for the serious student, the Paliotto, though an important and beautiful work of art from a period when works both important and beautiful are rare, has remained — and still remains, in spite of all the attention given it — in the limbo of art objects of which the date of origin is either unknown or held suspect.

Since it is to the solution of the date of the Paliotto that

1. The author is especially indebted for assistance and criticism to Professors A. M. Friend, C. R. Morey, and W. F. Stohlman, of Princeton University, and to Drs. Hans Swarzenski and Kurt Weitzmann, of the Institute for Advanced Study.

2. A. K. Porter, *Lombard Architecture*, New Haven, 1916, II, p. 546. With the exception of Figures 1, 2, 13, and 14, all the photographs of the Paliotto reproduced here are from the extensive collection of Arthur Kingsley Porter. I am indebted to Mrs. Porter for her generous permission to publish them.

3. Frankfurt, 1892, pp. 108–113.

4. M. G. Zimmermann, *Oberitalische Plastik im frühen und hohen Mittelalter*, Leipzig, 1897, pp. 178–197.

5. Zimmermann noted a similarity between the style of the Paliotto and that of the ciborium above it, but considered the latter to be of the twelfth century. Other critics, however, notably Vitzthum (*Die Malerei und Plastik des Mittelalters in Italien*, Handbuch der Kunstwissenschaft, Wildpark-Potsdam, 1924, p. 71), have attempted to defend the Carolingian date of the Paliotto by a comparison with the same ciborium, which accordingly they date in the ninth century. More recently, Haseloff (*Pre-Romanesque Sculpture in Italy*, New York, 1930, p. 66) has suggested an Ottonian date for the ciborium.

6. E. Molinier, *Histoire générale des arts appliqués à l'industrie*, Paris, 1901, IV, pp. 81–85.

7. H. Deckert, "Der Paliotto von Sant' Ambrogio in Mailand," *Marburger Jahrbuch für Kunstwissenschaft*, I, 1924, pp. 268–272. Cf. in the same number of the *Jahrbuch* the brief remarks of R. Hamann in favor of a ninth-century date for the Paliotto, "Grundlegung zu einer Geschichte der mittelalterlichen Plastik Deutschlands," p. 8.

8. A. Venturi, *Storia dell' arte italiana*, Milan, II, 1902, pp. 232–244.

9. F. Bock, *Die byzantinischen Zellenschmelze der Sammlung Dr. A. von Swenigorodskoi*, Aix, 1896, pp. 64 ff.

10. A. Marignan, *Études sur l'histoire de l'art italien du XI–XII siècle*, Strasbourg, 1911, pp. 3–18.

11. A. K. Porter, *op. cit.*, II, pp. 545 ff.

12. A complete bibliography for the Paliotto would fill several pages. The authors mentioned here, however, are among those who have treated the subject most fully. The remaining bibliography will be cited in the course of the development of the Paliotto problem in connection with that aspect of the argument to which, in the opinion of the present author, each scholar has made the most important contribution. A very full bibliography for the Paliotto is also given by Y. Hackenbroch, *Italienisches Email des frühen Mittelalters*, Basel und Leipzig, 1938, pp. 18–19.

this study is principally addressed, it is not offered as a definitive answer to all the many problems raised by a discussion of this famous altar. In many cases too little is known of the genesis and development of Carolingian-Ottonian art to make such finality at the present time either wise or possible. If certain suggestions regarding the provenance of the altar are made, it is the hope of their author that they may prove a basis for welcome criticism, which, in turn, will be of aid when some time hence he publishes, as he hopes to do, a more complete study of the place of the Paliotto and its related works in the artistic development of the period.

The Inscription

The crux of the archaeological problem of the golden altar may be stated simply in a sentence. It is the discrepancy which seems to many scholars to exist between the dedicatory inscription and the style and iconography of the repoussé[13] plaques which make up the altar and to which the inscription seems accordingly to refer. The inscription in question is in niello and surrounds the three nearly equal sections into which the back of the Paliotto is divided (Fig. 2). The words are so placed that the first letter of each of the vertical bands serves also in one of the words of the horizontal inscription above and below. The verses in Latin hexameters, which have been often somewhat incorrectly transcribed hitherto, record that the altar was erected in honor of St. Ambrose at the order of Archbishop Angilbert:

> The beneficent shrine shines forth, lovely with its glittering panoply of metal and dressed with gems. But more potent than all its gold is the treasure with which it is endowed by virtue of the holy bones within it. This work the noble bishop, famed Angilbert, offered with joy in honor of the blessed Ambrose who lies in this temple,[14] and dedicated to the Lord in the time when he held the chief place of this brilliant see. Father on high [i.e., Ambrose] look upon and pity thy loving servant, and by thy intercession may God bestow his divine blessing.[15]

The Angilbert mentioned in the inscription is the second bishop of that name, who occupied the see of Milan from 824 to 859. Thus to judge from the inscription alone the altar must be regarded as having been made sometime within the thirty-five years of his episcopate. There exists, however, a second document, which, if it be accepted as authentic, would permit us to date the Paliotto more exactly. This additional evidence was first published by Puricelli, and has since been quoted by many other writers on the Paliotto. It bears the date of March 1, 835, and purports to have been written by Angilbert himself. After mentioning the Abbot Gaudentius whom he was bringing to Milan to be in charge of Sant' Ambrogio, Angilbert concludes:

> Now, moreover, in order that these monks, unhindered by need may be strong in the service of God . . . by this deed I entrust the church and altar which because of my great love for Ambrose I have built anew in wonderful wise in that place, to the care and protection of the above-mentioned Abbot Gaudentius, and let it [i.e., the altar, in view of the relative *quod* and the singular verb] remain under his jurisdiction forever and that of his successors without end.[16]

Unfortunately two circumstances oblige us to regard with some suspicion this evidence for the date of the Paliotto. The first of these is the fact that in its present form the document purports to be a later copy of the ninth-

13. According to J. Braun (*Der christliche Altar*, Munich, 1924, I, p. 111) the frame of the Paliotto is of wood to which are attached repoussé plaques banded by box-enamels. The material of the plaques has been shown by Tarchiani, who carefully examined the altar when it was dismantled for safety during the first World War ("L'Altare d'oro di Sant' Ambrogio di Milano," *Dedalo*, 1921, pp. 5 ff.), to be gold on the front and gilded silver on the sides and back.

14. St. Ambrose had requested that after his own death his body be placed with those of Sts. Gervasius and Protasius which he himself had interred beneath the high altar of his basilica-church. Apparently his request was carried out, for in 1864 a search beneath the altar revealed at a depth of about a meter a porphyry sarcophagus containing three skeletons, two of large proportions and one of a smaller man. The latter was taken to be that of St. Ambrose and the two larger skeletons to be those of Sts. Gervasius and Protasius. Nearby were found the two empty coffins, left empty, it was supposed, when the bodies of Gervasius and Protasius were placed with that of St. Ambrose. All three bodies were later removed and placed in a modern sarcophagus. Cf. Carlo Romussi, *Milano ne' suoi monumenti*, Milan, 1893, p. 306.

15. Æmicat alma foris rutiloque decore venust(a)
Arca metallorum gemmis quae compta corusca(t).
Thesauro tamen haec cuncto potiore metall(o)
Ossibus interius pollet donata sacrati(s).
(Æ)gregius quod praesul opus sub honore beat(i)
Inclitus *Ambrosii templo recubantis in isto*
*Optulit Angilbertus ovans, Domi*noque dicavi(t)
Tempore quo nitidae servabat culmina sedis.
(A)spice, summe pater, famulo miserere benign(o),
(T)e miserante Deus donum sublime reporte(t).

The letters in parentheses are those which are so placed in the inscription that they are made to serve simultaneously in several words. Thus the final "a" of "venusta" is also the initial letter of both "Arca" and "Aspice."

16. "In nomine Domini, Angelbertus beatae Mediolanensis ecclesiae humilis archiepiscopus . . . verti me ad monasterium beatissimi Ambrosii, Christi confessoris, ubi humatum corpus quiescit: quatenus necessitate cogente, ibidem abbatem ordinare debuissem . . . tunc Domino favente, consulentibus etiam sacerdotibus nostris, abstuli Gaudentium abbatem monasterii sancti Vincentii, quem etiam ego ibi abbatem jam dudum ordinaveram, et in praefato monasterio sancti Ambrosii abbatem constitui. Nunc autem ut ipsi monachi valeant Deo servire, et ei jugiter laudum gratias referre, exclusa indigentia, tam ob stabilitatem regum nostrorum, invictissimorum imperatorum Ludovici et Hlotharii, quam ob pacem immaculatae matris ecclesiae; per hoc preceptum confirmo ecclesiam et altare, quod inibi noviter mirifice aedificavi ob nimium amorem confessoris Christi Ambrosii, in tutela et omni custodia suprataxati Gaudentii abbatis, et in ejus ditione perhemniter suisque successoribus permaneat sine fine . . ." Puricelli, *Ambrosianae . . . Basilicae . . . Monumenta*, 1645, No. 44.

FIG. 1. Milan, Sant' Ambrogio: Front of the Paliotto

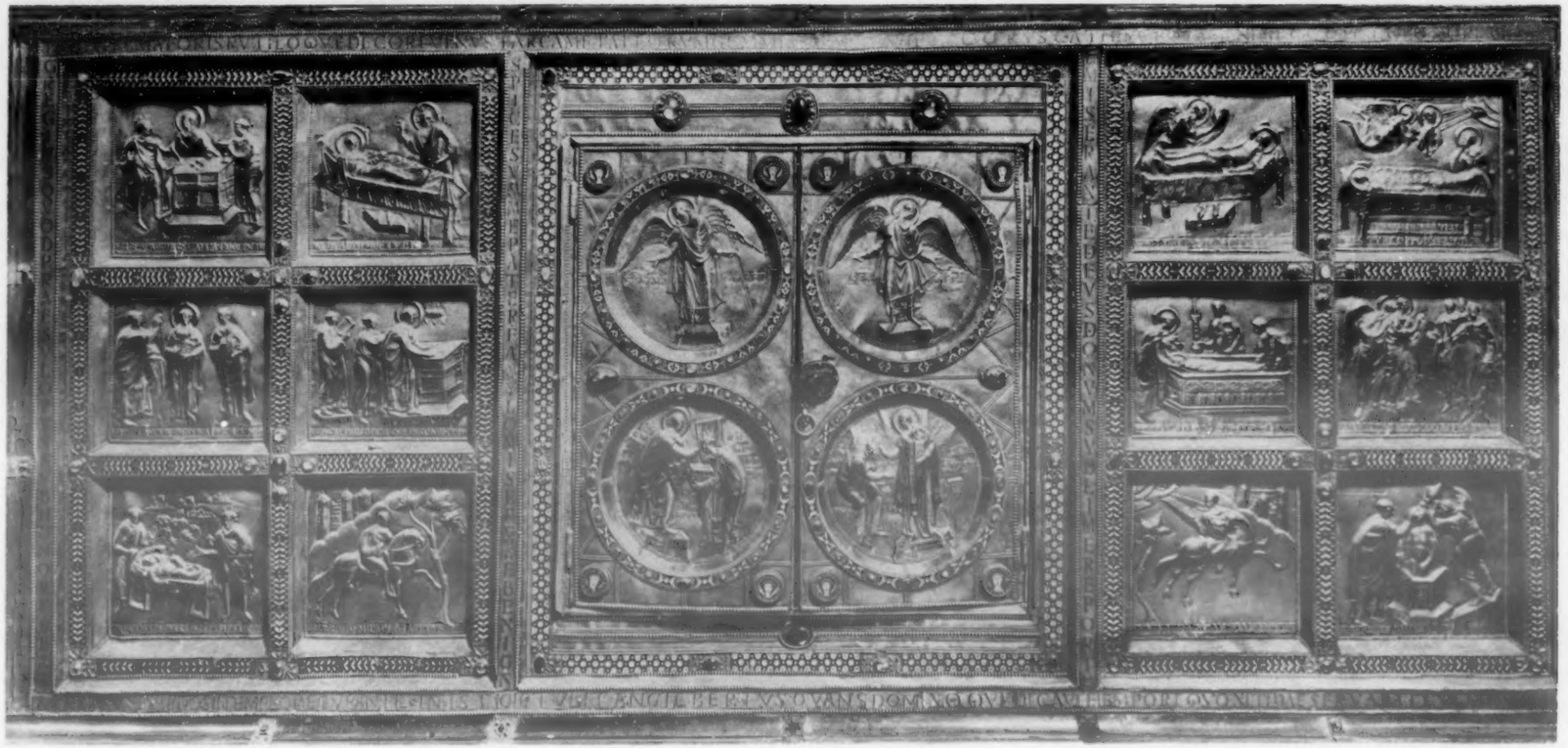

FIG. 2. Milan, Sant' Ambrogio: Back of the Paliotto

FIG. 3. Paris, Bibl. Nationale: Ms. Lat. 1, Vivian Bible, Fol. 4r., Detail

FIG. 4. Back of Paliotto, Detail of Original Inscription

FIG. 5. Back of Paliotto, Detail of Restored Part of Inscription

century original.[17] This in itself would perhaps not justify our discarding it, but the time of the appearance of the so-called copy coincides with the height of the quarrel between the monks and canons of Sant' Ambrogio for the possession of the church, and specifically for the right to celebrate Mass at the golden altar. This controversy broke out as early as the end of the eleventh century and raged until well into the eighteenth. As Porter has pointed out,[18] neither side stopped short of murder, and bribery and forgery were recognized weapons. With these conditions as a background, Angilbert's specific gift to the monks of the altar and its offerings, *perhemniter* and *sine fine* "in order that unhindered by need they may be strong in the service of God" takes on the character of propaganda. It is of course possible that the monks merely adapted to their purpose an authentic document, and that the date of 835 has therefore some basis in fact. However that may be, a suspect document of this kind can be of little value in establishing the ninth-century date of the Paliotto.

But if we agree with Porter, and those others who would date the Paliotto in the twelfth century, to the extent of putting aside the 835 document as untrustworthy evidence, we cannot disregard so easily the dedicatory inscription on the Paliotto itself. Zimmermann attempted to explain this awkward obstacle to his theory of a twelfth-century date by suggesting that the present inscription was a copy of the original ninth-century one. But the inscription (Fig. 4) has a distinctly Carolingian character, its lettering for example finding good parallels in the manuscripts of Tours (Fig. 3).[19] This simple, spacious style, with full rounded forms whose width is almost equal to their height, can be differentiated from the elongated, more crowded, angular letters of both the preceding Merovingian period and the later Romanesque.[20]

The wording of an inscription composed at one time might be repeated at another; an exact copy of epigraphic style is more difficult. The inscription on the Paliotto has, in fact, within itself some evidence to this effect. At some time after the completion of the altar, it was necessary for some reason to replace a small portion of the original inscription.[21] Today the restored portion is all too apparent, although the restorer undoubtedly intended to copy the style of the ninth century (Fig. 5). Not only is the quality of the lettering greatly inferior to the original, but a number of stylistic variations betray the later date. Compare with those of the original, for example, the letters "R" and "A."

An inscription which gives evidence of having been tampered with invariably raises perplexing problems for the archaeologist. This is especially true in this case, for in the restored portion of the dedicatory verses on the Paliotto appears the name of Archbishop Angilbert on which the ninth-century dating of the altar might seem to rest. The fact, however, that later portions of the inscription continue so well the meter of the original argues for the authenticity of its wording. Moreover, the connection of Angilbert with the Paliotto does not rest entirely upon the inscription but is also borne out by the representation of that personage presenting the altar to St. Ambrose on one of four medallions on the back of the altar itself (Fig. 11).[22] The fact that Angilbert is here represented as wearing a square nimbus has appeared to many writers a further confirmation of the view that the altar was made before his death in 859.[23] The authority for the belief that in the Middle Ages a square nimbus was used as the symbol of a living person is the description by the ninth-century cleric and biographer, Deacon John, of the portrait of Gregory I in SS. Andrea e Gregorio at Rome.[24] Commenting on the square nimbus worn by the pope, John states that Gregory preferred about his "head not a round nimbus but one like a panel-picture, which is the sign of one living," and adds, "from which fact it is plainly shown that Gregory, while he was yet alive, desired to have his portrait well painted."[25] Clearly, for John the square nimbus was not only the sign of a living person but also the mark of an actual *portrait* as well. From his use of the phrase "like a panel painting

17. Porter (*op. cit.*, p. 548) dates the present copy in the XIII century and labels it a patent forgery. Tarchiani, one of the more recent writers on the Paliotto (*op. cit.*, p. 14), has concurred in this opinion and pointed out that much later the monks themselves admitted the forgery.

18. *Op. cit.*, p. 543.

19. W. Köhler, *Die karolingischen Miniaturen: Die Schule von Tours*, Berlin, 1930, pl. 78.

20. See P. Deschamps, *Étude sur la paléographie des inscriptions lapidaires de la fin de l'époque mérovingienne aux dernières années du XIIe siècle*, Paris, 1929, p. 14. The same Carolingian lettering is illustrated by a second inscription, in this case on stone, viz. the epitaph of Bishop Anspertus, which bears the date 882, and has the further advantage of being in Milan itself (*ibid.*, pl. IV, fig. 6). The resemblance between the lettering of the Paliotto and such ninth-century works is reinforced by the contrast with a typical twelfth-century inscription (*ibid.*, pl. XVIII, fig. 36). In the former the classic ancestry is unmistakable, while in the latter the artist has fallen into mediaeval practice noticeable particularly in his treatment of the letter "m."

21. *Vide supra*, note 15. The portion of the inscription printed in italics has been restored.

22. The curious objection raised by Kondakov (*Émaux byzantins*, p. 110) that the inscription on the Paliotto does not say that Archbishop Angilbert had the altar made, but only that he had the relics of St. Ambrose placed in it, is met not only by the *quod opus optulit* of the inscription, but also by the evidence afforded by the representation of Angilbert in this medallion.

23. For example, Zimmermann, *Oberitalische Plastik*, p. 196, or Molinier, *Histoire générale*, IV, p. 83.

24. Illustrated in the *Nuovo Bullettino di archeologia cristiana*, 1900, pl. IX.

25. "Circa verticem vero tabulae similitudinem, quod viventis insigne est, praeferens, non coronam. Ex quo manifestissime declaratur, quia Gregorius, dum adviveret, suam similitudinem depingi salubriter voluit." *Vita Gregorii Magni*, IV, 84, Migne, *Patrologia Latina*, LXXV, col. 231.

(tabulae similitudinem)" some writers have attempted to deduce the origin of the square nimbus: Wilpert[26] from portraits applied to the wall, Grüneisen[27] from the mummy portraits of Hellenistic Egypt. But whatever the precise meaning of Deacon John's statement, to judge from the results achieved, there is little likelihood that in the majority of cases the square nimbus can be taken as an indication of the artist's intention to render an actual portrait. What is clear, rather, is that by the time of Angilbert the square nimbus was employed as a mark of distinction. The difficulty arises only when we attempt to say what, precisely, it was intended to distinguish. Following the statement by Deacon John, it is usually assumed that it marks a man as still living when the work of art which his "portrait" adorns was made, and for the majority of examples this might well be the case.[28] On the other hand, there are enough examples in which the square nimbus has been given to persons clearly not living to render the traditional interpretation of this peculiar piece of iconography open to question. In the Exultet Rolls of South Italy, for example, the square nimbus is worn by Moses;[29] in an Etymologiae of Isidore of Seville at Vercelli it is given to a figure labeled "Apollo Medicus,"[30] while in the Apocalypse at Trèves we find it is worn by the False Prophet.[31] It might be objected that it is not cogent to compare biblical and mythological personages who wear the square nimbus to historical figures like Archbishop Angilbert, but such an objection involves a very modern view of history. For a man of the Middle Ages, Moses and Apollo were no less real people who had once lived than were, let us say, his own ancestors. It is true, however, that in the majority of examples, e.g., the "portrait" of Archbishop Egbert on the dedication page of the Codex Egberti,[32] the wearer of the square nimbus was almost certainly living at the time his "portrait" was made. Even in the case of sepulchral art like the mosaic above the tomb of Theodora, the mother of Paschal I, there is always the possibility that the tomb was prepared while the person destined to occupy it was still alive.[33] But since this singular type of nimbus is most often given to donors and patrons, the fact that they were living when the work of art which their "portrait" adorns was commissioned seems a logical and economic necessity which we might infer without the aid of some distinguishing mark like the square nimbus. We shall probably be far nearer the true meaning of this peculiar piece of iconography if we can accept for it an explanation which is equally applicable to all cases alike. Such an explanation appears to be that in the ninth century the so-called square nimbus was really a mark of distinction given to persons, real or mythological, living or dead, who by their special qualities or virtues had risen above the common level of mankind but without attaining the position of sainthood. Such a mark of distinction is the more necessary when the virtuous man is represented in the company of saints and common men. Lombard practice in the ninth and tenth centuries seems to have embraced both uses of the square nimbus. The "Apollo Medicus" so adorned illustrates, as we have just seen, the manuscript of Vercelli. The deacon "David Pertus" distinguishes himself from his patron St. Peter by wearing a rectangular nimbus, in a Homilies of Gregory of the capitular library of Vercelli,[34] but on the other hand the emblem is used in the Sacramentary of Ivrea to designate the celebrant bishop.[35] Angilbert on the Paliotto is placed, by virtue of his rectangular nimbus, midway, in honor, between

26. J. Wilpert, *Die römischen Mosaiken und Malereien der kirchlichen Bauten vom IV. bis XIII. Jahrhundert*, Freiberg im Breisgau, 1916, I, pp. 107–113.

27. W. de Grüneisen, *Le portrait*, Rome, 1911, p. 81.

28. A list of square nimbi has not been included here since one may be found in the recent study by G. B. Ladner, "The So-Called Square Nimbus," *Medieval Studies*, 1941, pp. 15–45. See also, Ph. Lauer, "Observations sur l'origine et l'usage du nimbe rectangulaire," *Mémoires de la société nationale des antiquaires de France*, LXVII, 1908, pp. 55–71; H. Leclercq, *Dictionnaire d'archéologie chrétienne et de liturgie*, XII, 1, col. 1308; A. N. Didron, *Iconographie chrétienne*, Paris, 1843, pp. 78–84.

29. M. Avery, *The Exultet Rolls of S. Italy*, Princeton, 1936, pl. CXXVI.

30. Vercelli, Archivio Capitolare, Cod. CCII (IX–X cent.). Cf. A. M. Brizio, *Vercelli* (Catalogo delle cose d'arte e di antichità d'Italia), Rome, 1935, p. 98.

31. Trèves, Bibliothèque de la ville, Cod. 31 (VIII–IX cent.). Cf. A. Boinet, *La miniature carolingienne*, Paris, 1913, pl. CLV; Th. Frimmel, *Die Apokalypse in den Bilderhandschriften des Mittelalters*, Wien, 1885, p. 36.

32. F. X. Kraus, *Die Miniaturen des Codex Egberti in der Stadtbibliothek zu Trier*, Freiberg im Breisgau, 1884, pl. II; Egbert also wears a square nimbus in the Egbert Psalter. Cf. the discussion by H. V. Sauerland and A. Haseloff, *Der Psalter Erzbischof Egberts von Trier; Codex Gertrudianus, in Cividale*, Trier, 1901, p. 50.

33. G. B. de Rossi, *Musaici cristiani delle chiese di Roma*, Rome, 1899: "Musaico dell' oratorio di S. Zenone in S. Prassede." The same may be said of the frescoed bust (now destroyed) of Pope John XIII over his own tomb in S. Paolo fuori le mura (Wilpert, *op. cit.*, II, fig. 291), or of the representation of Aribertus on a copper cross above his sarcophagus in the Cathedral of Milan (C. Romussi, *Milano ne' suoi monumenti*, pl. XLVII). However, there may be cited several examples of figures, clearly "historical" in the modern sense, who wear the square nimbus but who were not living when the monuments of which their "portraits" are a part were made. On the spandrel of the apsidal arch of the triclinium of Leo III (795–816), for example, Christ was represented enthroned and giving the keys to Silvester of Rome (or S. Peter) and a banner to Constantine the Great, both of whom wear the square nimbus, although they had been dead five centuries (R. Garrucci, *Storia della arte cristiana*, IV, 1877, pl. 283). The portrait of Pope Liberius (352–366), formerly in Old St. Peter's, seems to belong to the thirteenth-century additions. Ladner (*op. cit.*, p. 19) suggests that Liberius alone was given the square nimbus in place of the round one which the other popes wear because there existed throughout the Middle Ages a question regarding his orthodoxy. Ladner (*ibid.*) also suggests that even the square nimbus which Deacon John saw about the head of Gregory should be regarded as a later addition.

34. Cod. CXLVIII; Brizio, *op. cit.*, p. 99.

35. L. Magnani, *Le miniature del Sacramentario d'Ivrea*, Città del Vaticano, 1934, pl. V.

Ambrose, who wears the round halo of a saint, and Wolvinius, the artist of the Paliotto, represented in the neighboring medallion (Fig. 12), who, as a simple craftsman, wears no nimbus at all. To judge from the examples in which the square nimbus is clearly not the mark of a living man (some of them North Italian and of the period), we may not use its presence on the Paliotto as absolute proof that the altar was completed during Angilbert's lifetime.

If, then, the square nimbus be regarded as a mark of distinction and not necessarily an indication of date, and if the document of 835 be dismissed as untrustworthy evidence, only the dedicatory inscription remains as an index of the specific date of the Paliotto. The inscription says, however, that Angilbert "dedicated" (*dicavit*) the altar, which would be evidence enough for a date within his lifetime were it not for the fact that the words "aegregius" and "inclitus," which are used to describe Angilbert, have the ring of posthumous praise. At a time when the Bishop of Rome described himself in a dedicatory inscription by the modest word "honestus,"[36] it seems unlikely that the Bishop of Milan would speak of himself within the space of two lines as both "outstanding" and "famed." But if Angilbert died before the completion of the altar, what of the fact that the inscription says he dedicated the altar "while he was holding the chief place of this brilliant see"? Possibly we should seek another interpretation for this passage. Although the primary meaning of "dicare" in a religious context is "to consecrate" or "to dedicate" it may also mean "to designate," "to set aside," "to order," and therefore to *commission*. If we so translate "dicare" in the dedicatory inscription of the Paliotto, we have in the hypothesis that Angilbert died before the completion of his altar a likely explanation of the adjectives "inclitus" and "aegregius," which then become justifiable words of praise for the recently departed prelate, instead of evidence of unchristian pride. Such an explanation has about it a measure of conjecture, but it does no violence to any of the relevant facts and has the added advantage, as we shall see, of answering in part several of the problems presented by the style and iconography of the repoussé plaques and enamels of the Paliotto itself.

The Back and Sides of the Altar

A comparison of Figs. 11 and 12 with Fig. 46 will show that any criticism of the Paliotto must recognize at the outset two distinct styles. To the first of these, illustrated by Figs. 11 and 12, belong the entire sides and back of the altar; to the second, seen in Fig. 46, belong all the scenes of the front, with the exception of three panels replaced in the Renaissance. This difference in style might be seen on further inspection to be paralleled by a corresponding difference in iconography. Without attempting at this point, however, to explain these differences as those either of hand or of date, the fact that a stylistic division does exist is taken as sufficient reason for separating the front of the altar for special analysis and discussing first the back and sides as a single stylistic entity.

The medallions containing the figures of Angilbert (Fig. 11) and Wolvinius (Fig. 12), which appear on the back of the altar, have already been noted for the bearing which they have on the authenticity of the inscription. Each of these medallions adorns the bottom of one of the two doors which give access to the confessio beneath the altar.[37] Above them, on each door, is a figure of an archangel similar in style to the angels on the ends (Figs. 13 and 14), although here less animated. On one door is the Archangel Michael (SCS MICHAEL), on the other Gabriel (SCS GABRI). At either side of these central doors are six scenes from the life of St. Ambrose (Fig. 2). They should be read beginning at the bottom left and continuing straight across the altar:

1. UBI EXAM(EN) APU(M) PUERI OS CO(M)-PLEVIT A(M)BROSI(I). *In which a swarm of bees filled the mouth of the boy Ambrose.* Ambrose is here pictured as a child asleep in his crib, while his mother and father stand nearby. Suddenly a swarm of bees appears which flies in and out of the open mouth of the sleeping child without stinging him, a portent of his later eloquence.[38]

2. UBI A(M)BROSI(U)S EMILIA(M) PETIT AC LIGURIA(M). *In which Ambrose goes to Emilia and Liguria.* After his father's death, Ambrose and his mother went to Rome where Ambrose took up the study of law. As a lawyer he was later so successful that the prefect Probus appointed him a magistrate in the provinces of Emilia and Liguria. In this panel Ambrose is seen as he sets out on horseback for his new post, leaving behind him the city of Rome, the towers of which can still be seen over the crest of a hill on the left.

3. UBI FUGIENS SP(IRIT)U S(AN)C(T)O FLANTE REVERTITUR. *In which, while fleeing, he is turned back by the breath of the Holy Spirit.* While Ambrose was acting as magistrate, the Bishop of Milan died, and a quarrel arose between the Arians and the Catholics as to who should be the next bishop. Ambrose, as a magistrate, had been called upon to keep order between the two contending factions, when suddenly a voice was heard, "Ambrose, Bishop!" The cry was taken up by all present, and Ambrose was obliged to flee or become Bishop of

36. Inscription of Paschal I in the apsidal mosaic of Santa Maria in Domnica. Cf. G. B. de Rossi, *Musaici cristiani e saggi dei pavimenti delle chiese di Roma*, Rome, 1899, pl. XXIII.

37. J. Braun, *Der cristliche Altar*, I, p. 111.

38. This incident, as most of the others pictured here, was related by Paulinus, Ambrose's secretary, who wrote a life of St. Ambrose at the suggestion of St. Augustine. *Vita Sancti Ambrosii*, Migne, *Patrologia Latina*, XIV, cols. 30 ff.

Milan on the spot. This third scene represents Ambrose as, fleeing on horseback, he is suddenly stopped by the Holy Spirit and told to turn back.

4. UBI CATHOLICO BAPTIZATUR EP(ISCOP)O. *In which he is baptized by a Catholic bishop.* Although a Christian, Ambrose had never been baptized. When, however, he perceived that it was the will of God that he be Bishop of Milan, he agreed to accept baptism provided a Catholic bishop perform the rite. Here he is pictured standing in the font as the water is poured over his head.

5. UBI OCTAVO DIE ORDINATUR EP(ISCOPU)S. *In which on the eighth day he is ordained bishop.* Once baptized, Ambrose's rise to the episcopate was rapid. Here we see him, having passed through the minor orders, made bishop eight days after his baptism.

6. UBI SU(PE)R ALTARE DORMIENS TURONIAM (P)ETIT. *In which as he sleeps at the altar he visits Tours.* The story is told that as he was celebrating Mass one day, Ambrose was miraculously transported to Tours while he slept. He is represented here as he stands before the altar. Behind, a priest is shown in the act of arousing the sleeping bishop.

7. UBI SEPELVIT CORPUS BEATI MARTINI. *In which he buried the body of the blessed Martin.* At Tours Ambrose assisted at the funeral of St. Martin. He is pictured in this panel as he helps a priest to lower the body of St. Martin into the sarcophagus, behind which a third priest stands holding a large candle.[39]

8. UBI PREDICAT A(N)G(E)LO LOQ(UE)NTE A(M)BROSIU(S). *In which Ambrose preaches with the words of an angel.* So powerful were St. Ambrose's sermons that it was believed that his words were directly inspired from heaven. A group of three men here listens while Ambrose speaks the words whispered in his ear by the angel at his side.

9. UBI PEDE(M) A(M)BROSIUS CALCAT DOLENTI. *In which Ambrose treads on the foot of the sick man.* On one occasion while Ambrose was celebrating Mass, a cripple came to him to receive communion. The miraculous cure represented here took place when Ambrose accidentally touched with his own foot that of the lame man.

10. UBI IE(S)UM AD SE VIDET VENIENTE(M). *In which he sees Jesus approaching him.* As St. Ambrose, now an old man, lies in bed, he is visited by Christ who foretells to him his approaching death. Not the least interesting part of the scene are the shoes of St. Ambrose placed neatly side by side on a stool beneath the bed.

11. UBI AM(M)ONIT(US) HONORAT(US) EP(ISCOPU)S D(OMI)NI OFFER(T) COR(PUS). *In which, admonished* (by an angel), *Bishop Honoratus offers the sacrament* (Corpus Domini). While Honoratus, Bishop of Vercelli, lies sleeping, an angel appears to him to announce that the hour of Ambrose's death has come and to order him to administer the last sacrament to the saint.

12. UBI ANIMA IN CELUM DUCITUR CORPORE IN LECTO POSITO. *In which his soul is borne up to heaven, his body remaining on the bier.* St. Ambrose is here pictured as he lies dead upon a bier. Over his body is spread a richly embroidered blanket. At his feet there is seated a saint, while above an angel bears his soul to heaven.

Except for minor details, both ends of the Paliotto are treated alike. On the right end (Fig. 13) small medallions are filled with the busts of St. Ambrose (ABR), St. Protasius (PRO), St. Gervasius (GER) and St. Simplicianus (SIPL), while on the left end (Fig. 14) the same are filled with the busts of St. Martin (MART), St. Nabor (NABO), St. Nazarius (NAZA), and St. Maternus (MANV).[40] Aside from these medallions and a large enamel cross in the center adored by four unknown

39. The story of St. Ambrose's miraculous visit to Tours is the only one of the incidents from his life pictured on the Paliotto which is not related by Paulinus. It is found in St. Gregory's *Life of St. Martin*, Migne, *Patrologia Latina*, LXXI, col. 918. These same two scenes are also depicted in the mosaic of the apse of Sant' Ambrogio. In its present condition the mosaic gives evidence of more or less extensive restoration (cf. P. Toesca, *La pittura e la miniatura nella Lombardia*, Milan, 1912, pp. 129 ff.), but it is possible that in its general iconography at least it dates from the ninth century. In view of the widespread popularity of St. Martin, it is not surprising that the ecclesiastics of Milan sought to emphasize his connection with St. Ambrose. Even as early as c. 500, a church in Ravenna, now S. Apollinare Nuovo, was dedicated to the Gallic saint.

40. These particular saints were undoubtedly selected by the same ecclesiastic who planned for Wolvinius the life of St. Ambrose which is illustrated on the back of the Paliotto, perhaps by Angilbert himself. Each saint here represented was in some way closely connected with St. Ambrose or with Milan. St. Gervasius and St. Protasius were brothers martyred at Milan under Nero. When after three hundred years their burial place had been forgotten, God is said to have revealed it to St. Ambrose in a dream. The bodies of these two saints were found in the church of St. Nabor and St. Felix and removed thence to the new church, later called Sant' Ambrogio, which was then awaiting consecration. The request of St. Ambrose that he be buried near them was carried out upon his death, for, as we have seen (*vide supra*, note 14), all three remained buried beneath the golden altar until the removal of their bodies in modern times. St. Simplicianus followed St. Ambrose as Bishop of Milan. Of the saints pictured on the opposite end, St. Nabor was probably martyred at Milan in 304, St. Nazarius was an early martyr whose body was discovered by St. Ambrose, while St. Martin, as Bishop of Tours, joined St. Ambrose on several ecclesiastical issues of the day. The miraculous presence of St. Ambrose at the funeral of St. Martin we have seen illustrated in panels 6 and 7 on the back of the Paliotto. The fourth saint, labeled MANV, has regularly been identified as St. Maternus. This identification seems correct in view of the fact that there was a fourth-century Milanese bishop of that name who is also represented in a mosaic of the chapel of S. Vittore at Sant' Ambrogio.

saints,[41] the principal decoration of the two ends is composed of angels. Each angel (there are sixteen if both ends be counted) occupies a triangular space, and is so placed that with some distortion of angelic anatomy he exactly fills the awkward, three-sided field with his outspread wings.

So outstanding is the Paliotto as a work of art that many scholars have found it difficult to believe that from the atelier which produced this important example of the goldsmith's craft no other related examples have survived today. While some writers have been content to emphasize the unique and apparently isolated position which the Paliotto holds in the development of Italian metal work, others have sought in the Frankish art beyond the Alps the source of its distinctive style. Such a relationship with other Carolingian metal work was first proposed by Schmid[42] when he linked the Paliotto to the gold cover of the Gospels of St. Emmeran (Codex Aureus) in the State Library at Munich and to the ciborium of King Arnulf in the Munich Schatzkammer. To this group proposed by Schmid, Georg Swarzenski in an article on the school of Reims[43] added the gold cover of the Ashburnham Gospels now in the Morgan Library. More recently, A. M. Friend has localized the atelier which produced these works in the Abbey of Saint-Denis, but in so doing he excluded from the group the Paliotto.[44] A comparison of a typical detail of the Saint-Denis style (Fig. 7) with that of the Paliotto will show that its closest affinities are with certain figures on the front of the altar (Fig. 46) rather than with the style of the majority of the scenes on the back and sides (Figs. 11 and 12), but even in the case of the former the differences seem greater and more striking than do the similarities.

For the purpose of general analysis we may distinguish in the art of the Carolingian period two main stylistic currents, both of which had antique origin. The first of these is represented by the attempt of the Carolingian artists to continue the final tradition of the antique and finds its fullest expression in the so-called Ada school, the school of Tours, and the ivories related to them. At times the artists of these two schools, particularly those of Tours, achieved a fair approximation of the late antique style they sought to imitate. In the Vivian Bible, for instance,[45] we meet figures occupied with solemn acts whose clothing falls in fairly functional folds and who stand more or less firmly in poses indicative of poise and relaxation. Yet even at Tours, as in the figure from the Raganaldus Sacramentary illustrated in Figure 10, there is apparent the tendency of the Carolingian artists to transform into a series of linear ridges the plastic drapery folds which in classic art had served to reveal the articulate form beneath. This is even more noticeable in a figure like that from a Sacramentary in the Bibliothèque Municipale at Tours (Fig. 6),[46] where even the ends of the drapery have become a series of abrupt angles.

At the opposite extreme from the reserved manner of Tours is the "illusionistic" style of the school of Reims, continued in the school of Saint-Denis. This second principal artistic current distinguishable in Carolingian art is most fully illustrated by the miniatures of the Utrecht Psalter (Fig. 8).[47] The vivacity of this style with its rapid, mannered brush strokes and pirouetting figures met with singular favor in the scriptoria of France and England, and at times even the heavier manner of Tours shows the unmistakable marks of its powerful influence.

It is with the second of these trends, the "illusionistic" style of Reims, that the metal works of Saint-Denis find their closest affinity as the swirling drapery and unstable stance of the figures attest (Fig. 7).[48] The artist of the back and sides of the Paliotto, on the other hand, worked principally in the first of these two styles, the Carolingian version of the late antique, rather than in the "illusionistic" style of Reims and Saint-Denis. A number of the figures, like that of Ambrose (Fig. 12), retain in their apparent weight and monumentality a goodly measure of the classic feeling for form and dignity, the latter somewhat impaired by the face type, marked as it is by the characteristically Carolingian traits of weak chin, prominent eyes, and pursed lips (Figs. 7 and 12). In many cases, however, the plastic folds of the classic drapery style in the hands of Wolvinius have been reduced to a series of ridges and angular ends (Fig. 12) such as we have already noted in the school of Tours (Fig. 6), while in other places, notably the plaques on the two ends (Figs. 13 and 14), the monumental character of the back of the Paliotto gives way to a freer and more animated style. It is mainly these figures on the ends of the Paliotto, together with certain of those on the front, as noted above, which have inspired the attempts to associate the altar with the school of Saint-Denis. The angels

41. Cf. L. Meregalli, *La basilica di S. Ambrogio in Milano*, Milan, 1928, pp. 54 and 55, for excellent details of these figures. To judge from their costumes all four of the personages on the right end are deacons, while those on the left are laymen of importance, as shown by the chlamys which they wear. Too much emphasis, however, should not be placed on the nimbi worn by these eight figures, for in Carolingian times, particularly in the North, this attribute was bestowed with some freedom; see, for example, the clerics who wear the nimbus in the liturgical scene of the Raganaldus Sacramentary at Autun (Köhler, *Die Schule von Tours*, pl. 61).

42. W. M. Schmid, "Zur Geschichte der karolingischen Plastik," *Repertorium für Kunstwissenschaft*, XXIII, 1900, pp. 197–202.

43. G. Swarzenski, "Die karolingische Malerei und Plastik in Reims," *Jahrbuch der königlichen preussischen Kunstsammlungen*, XXIII, 1902, p. 92.

44. A. M. Friend, "Carolingian Art in the Abbey of Saint-Denis," *Art Studies*, I, 1923, pp. 67–75.

45. Köhler, *op. cit.*, pl. 74.

46. E. K. Rand, *A Survey of the Manuscripts of Tours*, Cambridge, Mass., 1929, II, 2, pl. CXLVII.

47. E. T. DeWald, *The Illustrations of the Utrecht Psalter*, Princeton, 1932, pl. LXV.

48. M. Rosenberg, *Geschichte der Goldschmiedekunst*, Granulation, Frankfurt a/M, 1917, III, fig. 246.

especially are strongly reminiscent of those on the Morgan book-cover. That the animation of these figures does owe something directly or indirectly to Reims and Saint-Denis is entirely possible, but the dissimilar character of other figure types makes it difficult to choose among the Frankish art centers a basic source of Wolvinius' style.

The view, however, that the formative influences which bear upon the style of Wolvinius should be sought in the Frankish art of the period finds some confirmation in a document published by Ludwig Traube.[49] This is a record of the loan by Angilbert himself of two monks, Hildemar and Leutgar by name, to the Abbey of St. Faustinus at Brescia. The two ecclesiastics, the document further states, Angilbert had obtained from France, and Traube identifies Hildemar with a monk of Corbie mentioned in a document of the same period.[50] To judge from their activities at Brescia, the mission of these two men of God was purely an intellectual one. Still, if Angilbert turned to France for his scholars and theologians, may he not also have sought there his artists? Perhaps together with Hildemar and Leutgar, or in their wake, came Wolvinius,[51] as was suggested by Traube.[52] Still, the document in question does not mention Wolvinius, or indeed any artist; the similarities between the Paliotto and the works of Saint-Denis or Tours are indicative of date rather than specific school. The tendency to seek outside Italy the home of the artist of the Paliotto is perhaps only evidence of our incomplete knowledge of north Italian art in the ninth century. Italy itself was the source of the antique style which the Frankish artists avowedly attempted to copy, and Milan remained throughout the period under discussion an important cultural center. We should be slow, therefore, to attribute to imported workmen the principal artistic monument of the period in Milan, when a careful study of all the evidence might well reveal that city as itself the center of a school of artists. Such a study of Milanese art we must perforce reserve for a future time; here is stressed only the general stylistic community with Carolingian art which supports a ninth-century date for the back and sides of the altar.

The date and authenticity of the inscription and the connection of the Paliotto with Angilbert of Milan have been defended earlier; the style of the sides and back of the altar, in view of its relation to transalpine art of the ninth century, is compatible with Angilbert's period. Unfortunately for our purpose the subject matter of the sides and back of the Paliotto is unique in Christian art of this period and earlier, depriving us of the aid of iconography. What follows is therefore only a stylistic comparison, singling out certain motifs common to the Paliotto and Carolingian works of art which substantiate the above hypothesis of date. If most of these comparisons are drawn from Tours, it is because the publication of the manuscripts of that school by Rand and Köhler have made Turonian material more readily available than is the case with the other Carolingian centers.

Composition. The artists of the Paliotto employed two compositional forms which are sufficiently unusual to invite comparison. The first of these is the use of large medallions to ornament the doors on the back of the altar which we have remarked as giving access to the confessio beneath (Figs. 2, 11, and 12). An analogous use of the round field on works of certain ninth-century date may be seen in two manuscripts of the school of Tours, the Liber Comitis at Chartres (Fig. 9)[53] and the Raganaldus Sacramentary of Autun (Fig. 10).[54] Indeed, the frequent use of such medallions is one of the most persistent characteristics of Tours, as a glance at any group of the collected manuscripts of that school will show. Here, too, should be noted a further feature which the medallion of the Raganaldus Sacramentary shares with that of the Paliotto, namely the absence of any ground line on which the enclosed figure might rest. In both cases the compositional elements, which contrast so markedly with their neutral background, are placed in accordance with the requirements of the round field in a decorative rather than a realistic way.[55]

The second, and more unusual, compositional form employed by Wolvinius is the square resting on one of its corners, which is the basis of the composition of the two ends

49. L. Traube, "Textgeschichte der Regula S. Benedicti," *Abhandlungen der königlichen Bayerischen Akademie der Wissenschaften, Philosophisch-philologische und historische Klasse,* XXV Band, 2. Abhandlung, Munich, 1910, p. 42; P. Toesca, "Il 'Liber Canonum' della Biblioteca Vallicelliana," *L'arte,* V, 1902, p. 231. The Latin, after Traube, reads: ". . . denique, cum nostrorum fidelium et maxime sacerdotum ad hoc multorum saluti profuturum provocaremur opus, petere a sanctissimo viro domno Angelberto archiepiscopo fratres curavimus, quibus huius officii curam nostra committere posset sagacitas, ipse vero, ut vir doctissimus multorum affatim illustrationem desiderans et non sua sed omnia quae sunt Iesu Christi per omnia quaerens, concessit nobis fratres ex Franciae partibus advenientes quosque ob illuminationem suae ecclesiae insolubili sibi sociaverat vinculo, Leutgarium videlicet abbatem et Hildemarum monachum, quatenus ita nobis praestarent adiutorium, quemadmodum illi nunc praestant et semper praestabunt; quorum vita atque doctrina plurimi hoc in regno illustrati esse noscuntur."

50. *Op. cit.,* p. 111. This author uses this association of Hildemar with Corbie as further proof that Wolvinius and the Paliotto should also be linked with the "school of Corbie," whose products are now usually attributed to Saint-Denis.

51. Here should also be mentioned the interesting but highly speculative suggestion of M. Buchner (*Einhard als Kunstler,* Strasbourg, 1921, pp. 5 ff.) that Wolvinius should be identified with the "Vussin" whom Einhard mentions as his pupil in one of his letters. Certainly the idea that the master of the Paliotto received his training from Charlemagne's director of the royal workshops is an attractive one, but the similarity between "Vussin" and "Wolvinius" is not cogent.

52. Traube, *op. cit.,* p. 108.

53. Köhler, *op. cit.,* pl. 114.

54. *Ibid.,* pl. 62.

55. Cf. the discussion by Roger Hinks of "picture surface" in Carolingian art (*Carolingian Art,* London, 1935, p. 192).

FIG. 6. Tours, Bibl. Municipale: Ms. 184, Sacramentary, Fol. 3r., Detail

FIG. 7. Munich, Staatsbibl.: Cover of Codex Aureus, Detail

FIG. 8. Utrecht Psalter, Fol. 40r., Detail

FIG. 9. Chartres, Bibl. Municipale: Ms. 24, Liber Comitis, Fol. 2r.

FIG. 10. Autun, Bibl. de la Ville, Ms. 19 bis, Raganaldus Sacramentary, Fol. 5r.

FIG. 11. Back of Paliotto: Angilbert Crowned by St. Ambrose

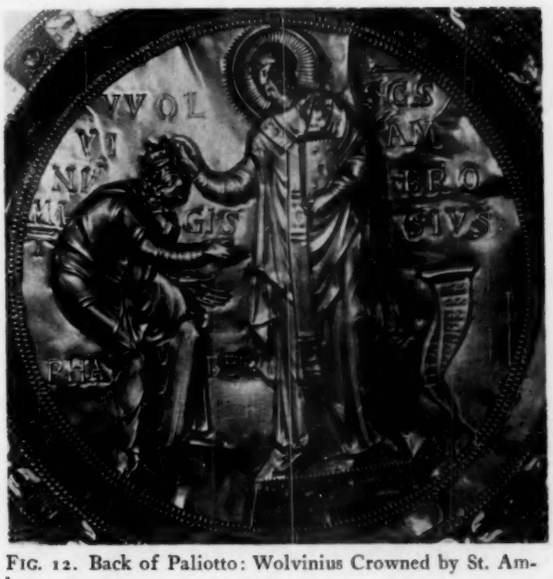

FIG. 12. Back of Paliotto: Wolvinius Crowned by St. Ambrose

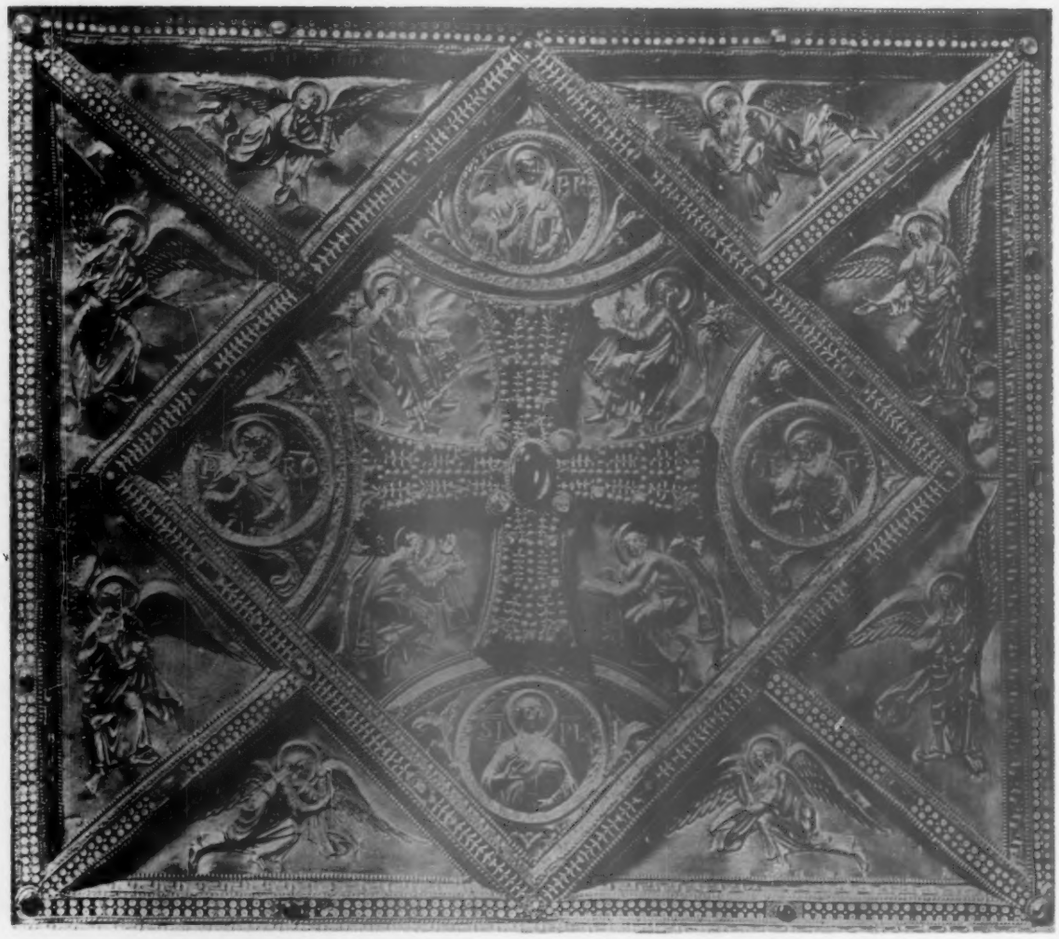

FIG. 13. Right End of Paliotto

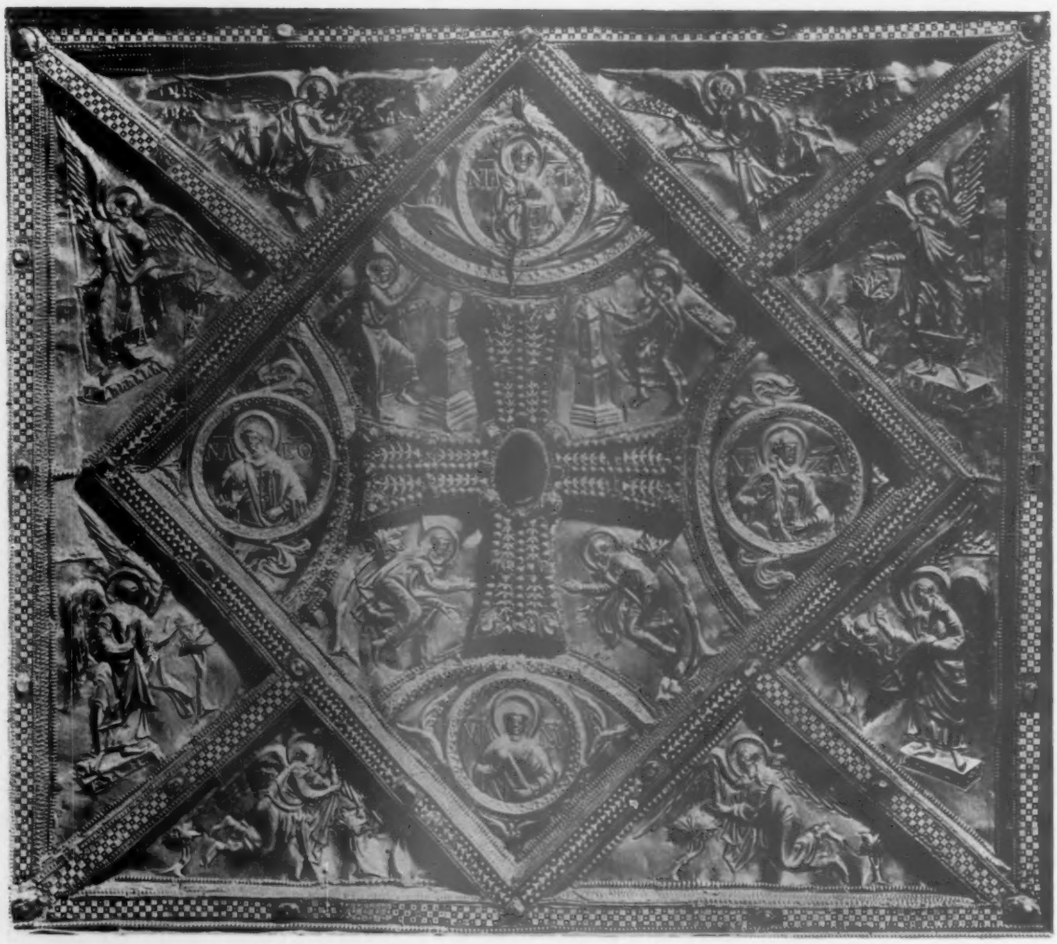

FIG. 14. Left End of Paliotto

of the Paliotto (Figs. 13 and 14). This shape is the more unusual since it forms of the remaining space a series of triangles which ordinarily an artist might avoid because of the difficulty of arranging a composition to fill them. An analogous use of the square (or diamond) on its corner with the resulting triangles may again be seen in several manuscripts of Tours or Saint-Denis, such as the well-known frontispiece of the Codex Aureus (Fig. 16)[56] or that of the Grandval Bible.[57] The design of the page of the Codex Aureus shares further with the Paliotto the peculiarity of a compositional field formed by the segment of a circle, which may be seen in the manuscript surrounding the figures of the Evangelists and on the Paliotto in the corners of the squares, noted above (Figs. 13 and 14).

Space-fillers. The artist of the miniature in the Grandval Bible, cited above, had recourse to small trees as an aid to filling the triangular space in the corners of the page, and such an expedient was also employed by Wolvinius in several places on the two ends of the Paliotto (Figs. 13 and 14). The use of the tree as a decorative space-filler, especially with the figures of the Evangelists, has behind it a tradition of such long standing that its appearance in any one instance is probably of little significance. What interests us here is the use of this feature in conjunction with the square on its corners and the resulting triangles which are found alike on the Paliotto and in the manuscripts of Tours. The variety of kinds of trees so employed by the artists of Tours and elsewhere is so great that the failure of any one example to conform exactly to the species used by Wolvinius does not seem important. In any case, it is rather the *use* of the tree as decorative space-filler on another monument of certain ninth-century date to which attention is here called.

A second type of space-filler employed by Wolvinius on the sides of the Paliotto is that of small clouds (Fig. 14). As with the trees, small, tight cloud-forms analogous in both shape and use to those employed in the Paliotto may be found in the Tours manuscripts, notably the Majestas miniature of the Evangelary of Prüm, now in the Staatsbibliothek at Berlin.[58]

Nimbus. With the exception of that of the enthroned Christ on the front, all the nimbi of the Paliotto are fluted.[59] It is the peculiarity of this form of decorated nimbus that although not unknown in manuscripts or ivories prior to the fourteenth century, it is most often used on metal work. Moreover, while it may be found on objects of any century from the eighth to the fifteenth, considering the number of monuments which have survived, the fluted nimbus seems most common in the Carolingian and late Gothic periods. Of particular interest in this respect are two important examples of Carolingian goldsmith's art, which we have noted previously as belonging to the school of Saint-Denis, the cover of the Codex Aureus (Fig. 17) and the ciborium of King Arnulf.[60] A comparison of details of the nimbi of these two monuments with those of the Paliotto (Figs. 11 and 12) will best serve to bring out their close similarity.

Foliate Ornament. From the medallions which enclose the busts of the saints represented on the ends of the altar spring a number of foliate sprays whose principal purpose it is to act as space-fillers. Such leafy ornament as this is characteristic of many ninth-century works such as the initials of the Sacramentary of Drogo, but the closest analogies to this decorative form, as it is employed by Wolvinius, may be found among the later Tours manuscripts, for here the sprays of leafage often spring from *medallions* as they do on the Paliotto. If, for example, some allowance be made for a difference in hand and in material, then the foliate ornament branching from the medallion of the Liber Comitis (Fig. 9) in its form and treatment seems parallel to that on the Paliotto.

Beading. In addition to the foliate ornament the medallion of the Liber Comitis (Fig. 9) shares another point of similarity with the Paliotto, namely, the row of small dots, or beading, along the edge. In the case of the Paliotto the small points made in the metal with some sharp instrument serve, of course, to give added definition to the repoussé technique. Since they are also used on the cover of the Codex Aureus (Fig. 17) we may regard them as a feature of

56. G. Leidinger, *Der Codex Aureus der Bayerischen Staatsbibliothek in München*, Munich, 1921, I, pl. 12.

57. Köhler, *op. cit.*, pl. 52. Cf. also pls. 56, 73, 107a, 114c.

58. *Ibid.*, pl. 93.

59. A distinction is here made between the fluted nimbus as employed on the Paliotto and related metal works, and the "scalloped" nimbus with rays ending in semicircles, which is a feature of manuscripts of the Carolingian "Ada" group.

60. The cover of the Codex Aureus seems to have been done in the Abbey of Saint-Denis about 870, for the manuscript of which it is the cover contains an inscription bearing that date. The stylistic relationship between the cover of the Codex Aureus, the Arnulf ciborium and the Morgan book-cover is so close that we must suppose they, too, date from the same time and are perhaps by the same hand. In addition to the dissimilarity between the style of the extant examples of Saint-Denis metal work and the Paliotto, the late date of the former also militates against any direct connection between them and the altar. Were it not for the discrepancy in date, it would be tempting to see in the unusual choice of angels as a decorative motif on the sides of the altar the influence of the pseudo-Dionysius the Areopagite. The works of this student of angel-lore, although brought to France and deposited at Saint-Denis as early as 835, were not translated from the Greek by John the Scot until 858. Friend has shown that because of the influence of Dionysius's catalogue of the Celestial Hierarchy upon the iconography of the school of Saint-Denis, there grew up at that abbey a predilection for angels unknown in other Carolingian schools (A. M. Friend, "Carolingian Art in the Abbey of Saint-Denis," *Art Studies*, I, 1923, p. 76). In order to see in the many angels of the Paliotto the influence of the pseudo-Areopagite, however, it would first be necessary to explain how that influence could have reached Milan when John the Scot's translation was completed only a year before the death of Angilbert and at a time when, as an analysis of the dedicatory inscription has suggested, the Paliotto was already in the process of construction.

Carolingian goldwork which possibly bears a relationship to the manuscripts of the same period.

Pedestals. A number of the figures on the back and sides of the Paliotto stand, not upon the ground, but on low pedestals, suggesting the footstools which usually accompany the portraits of the Evangelists. Such pedestals are frequently found with the standing Evangelists in Greek manuscripts, and in Western art of the ninth century may be seen alike in the apse mosaic of San Marco[61] (827–844) at Rome and the same initial of the Sacramentary at Tours which has previously been noted for the similarity of its style to that of the Paliotto (Fig. 6).

Costume. Secular costume is a valid indication of date, especially when, as in the case of the Ambrose-cycle, there seems to be no copying of a previous model. On the Paliotto such costume is of ninth-century character, as may be seen by comparing the dress of the lame man in scene 9 of the Ambrose series (Fig. 2) with that of Charles the Bald in a miniature of the Sacramentary of Metz (Bibl. Nat. lat. 1141), a Saint-Denis manuscript dated by Friend c. 869.[62] Both wear the same cloak caught by a brooch on the right shoulder and falling almost to the ankles in back, the same knee-length tunic tied at the waist, and the same short pants beneath.

The fact that a number of gold works from Saint-Denis have survived today we owe in great part to their preservation in the royal and imperial treasuries. Conversely, most of those precious objects which were not protected by the growing strength of the royal governments, or which were not linked to some great name, have long since disappeared. It is not surprising, therefore, that other Carolingian schools have left us no examples of their metal work to which the Paliotto might be compared,[63] unless it be the Reliquary of St. Stephen now in the Vienna Schatzkammer. This small casket was linked by Marc Rosenberg[64] to the other gold objects now usually attributed to Saint-Denis, but, like the Paliotto, was later omitted from the group by Friend.[65] It is adorned with small medallions depicting profane subjects, among others a fisherman, an archer, and a rider, in all of which the feeling for well-spaced composition, so noticeable on the Paliotto, is exhibited to an even greater degree. On both these monuments the artist has disposed the elements of his composition in such a way that they fill the picture field perfectly, but never crowd it. In a number of instances, large areas of the background are left vacant with none of the "horror vacui" which we have learned to expect in works of this kind. Particularly noteworthy on the reliquary is the treatment of natural forms such as the nude fisherman or the horse and rider. By chance there exist on the Paliotto two scenes in which a horse also appears (Figs. 2 and 20), and while those on the altar are perhaps a little stiffer than those of the reliquary, they both exhibit some command of the animal form, which becomes more marked if the horse and rider be compared with a similar subject as treated by an Ottonian artist a century and a half later (Fig. 19).[66] On the Paliotto a large measure of the classic understanding of form remains, while in the Ottonian manuscript the horse has become a mechanical toy consistent with the loss of the ability to render animate form which we recognize as mediaeval.

But if it is not surprising that there are few surviving Carolingian metal works to which the Paliotto might be compared, it is a matter for some wonderment that the scenes from the life of St. Ambrose on the back of the altar are also unique for this and earlier periods in any medium whatever. Did Wolvinius compose them himself entirely out of new cloth? Possibly, but since there is a good deal of evidence to support the view that many of the Carolingian metal works and ivories are based upon the manuscripts of the period, we are justified in asking if perhaps the artist of the Paliotto did not have such a source from which to derive his iconography. The question becomes less academic when we note that in all probability Wolvinius did have the text of Paulinus's *Life of Saint Ambrose* directly before him as he worked on the Paliotto, for the captions of the scenes on the back of the altar are occasionally little more than the words of Paulinus condensed to fit the limited space available. Thus the question is not, "Did Wolvinius use a manuscript when composing his scenes?" for he almost certainly did that, but rather, "Did this manuscript contain illustrations which could be copied along with the captions from the text?" Such a pictured saint's life, while not without parallel, would have represented a considerable undertaking in the ninth century, either at Milan or in one of the Carolingian scriptoria beyond the Alps. If the hypothetical illustrated manuscript were executed at Tours, one could thus explain the intrusion of the story of St. Ambrose's miraculous visit to Tours to be present at the funeral of St. Martin and especially the weight given to that event by devoting to it two of the twelve scenes on the back of the Paliotto. As has been pointed out, this incident is not related by Paulinus but by Gregory of Tours in his life of St. Martin, a well-thumbed text in the monasteries at

61. G. B. de Rossi, *Musaici*, pl. XXVIII.

62. A. M. Friend, "Two Manuscripts of the School of Saint-Denis," *Speculum*, I, 1926, p. 64.

63. A small piece which was connected by Rosenberg with the school of Reims is the silver plaque with a relief of the Harrowing of Hell which is fixed to the *suppedaneum* of a Romanesque crucifix in S. Eusebia at Vercelli; M. Rosenberg, *Jahrbuch der königlichen preussischen Kunstsammlungen*, 1922, p. 184; Brizio, *Vercelli*, pp. 67–69.

64. M. Rosenberg, "Das Stephansreliquiar im Lichte des Utrechtpsalters," *Jahrbuch der königlichen preussischen Kunstsammlungen*, Berlin, 1922, pp. 169–184.

65. Friend's list is on p. 73 of his article above-cited, *Art Studies*, I, 1923.

66. H. Wölfflin, *Die Bamberger Apokalypse*, Munich, 1921, p. 10.

Tours. A text illustrated in Turonian style would explain the Carolingian traits of the back and ends of the Paliotto: the resemblance of its lettering to that of Tours, the diamonds, medallions, and circle-segments used as frames, the trees and foliate space-fillers, the compositional scheme of the sides of the altar. But unfortunately, since the version of Paulinus which Wolvinius used is lost, the foregoing description of its character must remain, for the present at least, one of those attractive but unproved hypotheses so beloved by archaeologists. Probably the most we are justified in asserting on the basis of the concrete evidence here presented is that the similarities in style, palaeography, and detail which the Paliotto shares with other ninth-century works combine to reaffirm its connection with Angilbert of Milan and leave no reasonable doubt that at least the sides and back of the altar are products of the ninth century.

The Front of the Altar

The character of the front of the Paliotto has been the subject of extended discussion and analysis at the hands of the many writers on the Carolingian period. It has, for example, been compared to the ninth-century cover of the Codex Aureus[67] and with equal certainty to the twelfth-century altar of the cathedral of Città di Castello.[68] The divergence of these two monuments in both date and style presages what a reading of the bibliography only too clearly confirms, viz., that none of the stylistic parallels which have been cited for the Paliotto is convincing. Here is published for the first time, however, a complete set of details of the front of the altar and it is proposed to discuss the various scenes by analyzing them principally from the standpoint of iconography in the hope that iconography may yield the basis for determining a date which style alone has hitherto failed to do. Such an analysis is made possible by the fact that on the front of the Paliotto is a series of scenes the subjects of which, for the most part, are as common in Christian art as those on the back were unique. In the center is an enthroned Christ surrounded by the four symbols of the Evangelists and the twelve apostles arranged in groups of three, while on either side of this central portion are six scenes from the life of Christ and the Virgin (Fig. 1). In the light of what has been said regarding the relationship of the scenes on the back of the Paliotto to ninth-century works, we would expect that the familiar scenes of the front would be easily paralleled by similar iconography on monuments of known Carolingian date. But such an expectation, however reasonable, must be short-lived. We look in vain in Carolingian art for any such repertory of scenes as the front of the Paliotto represents. When in a very few cases subjects similar to those on the Paliotto are found on ivories or in manuscripts of the ninth century, it is only the subjects which are the same; the iconography is always different.[69] This lack of iconographic parallels among works of the ninth century is fortunately compensated by the suggestive and often convincing similarity of eight of the scenes on the front of the Paliotto to Ottonian manuscripts of the late tenth and early eleventh centuries. Before attempting to analyze these scenes in detail, however, it is perhaps important to mention those peculiarities of iconography which, in the opinion of the author, frequently make it possible to label works as "Carolingian" or "Ottonian" although they be separated in time by only a few decades or even years.

The Ottonian scriptoria were many, but here we are concerned principally with what was certainly the most productive and probably the most important, that on the island of Reichenau in Lake Constance. During the last two decades of the tenth century and the first half of the eleventh this center exported to many parts of Europe richly illustrated manuscripts for the libraries of the great. So highly was the work of the island regarded in its own day that in 998 Pope Gregory V asked that in return for a privilege granted to Reichenau three manuscripts be sent to him in Rome. Of the scores of manuscripts exported thus from Reichenau there have survived, at least in part, over twenty examples on which to base a study of the school. Of this number all but a very few contain scenes from the New Testament. But for the art historian the extraordinary richness of the Reichenau manuscripts is perhaps outranked by their similarity. With a few exceptions all these New Testament scenes show an iconographic sameness which seems to point inevitably to one conclusion, to wit, that ultimately behind them all there existed a single model. This does not, of course, mean that all Reichenau manuscripts are exactly alike or that the artist of every Gospel Book or Lectionary slavishly copied the same source manuscript. Quite the contrary; one of the most remarkable characteristics of the Ottonian genius is its ability to imaginatively alter, combine, and even to invent. Unquestionably, as we shall have occasion to note, most of the Reichenau manuscripts were based upon each other, as well as upon a common model. Yet beneath the innumerable alterations, com-

67. M. Conway, "A Dangerous Archaeological Method — I," *Burlington Magazine*, XXIII, 1913, p. 339.

68. A. K. Porter, *Lombard Arch.*, II, p. 592; M. G. Zimmermann, *Oberitalische Plastik*, p. 196; Kondakov (*Émaux byzantins*, p. 111) suggested that the Paliotto of Milan be compared to that at Salerno (XI–XII century).

69. The cover of the Codex Aureus, for example, has on it a scene which is also found on the Paliotto, the Cleansing of the Temple, but both the style and iconography of the scene on the cover have little in common with that of the Paliotto. The question of whether or not the Carolingian artists knew an extended cycle of New Testament scenes such as we meet in the Ottonian period, has never received a satisfactory answer. To judge from the extant monuments, they did not, but there is some literary indication to the contrary (cf. Karl Künstle, *Iconographie der christlichen Kunst*, I, p. 55 for a summary of this literary evidence).

binations, and errors is regularly distinguishable the same basic source, although the existence in each of the Reichenau manuscripts of one or more scenes not found in any other makes it clear that we do not possess this source in any extant manuscript. Notwithstanding, we may infer from the style of the copies that the model must have been an early Christian one. Certainly the Ottonian manuscripts in question have little or nothing in common with contemporary Byzantine work of the tenth and eleventh centuries, whatever earlier east Christian models may be supposed to have been available to the school. Most significant is the absence of any evidence that the source from which the Reichenau artists took their iconography was known in Carolingian times. The first extant monument to show its use is the well known Book of Pericopes made presumably at Reichenau for Archbishop Egbert of Trier about the year 980, the so-called Codex Egberti. In this manuscript we have thus a tentative *terminus a quo* for the introduction of our supposed model into Reichenau and the resulting appearance of a distinctive new iconography. Some indication of the relative dates of the later manuscripts of the school may also be gained by observing the development of style and iconography in those codices which lack a dedication page. It will be seen that the Codex Egberti (Fig. 37) exhibits a plastic quality of painting which clearly reflects an early Christian model like the Vienna Genesis, and the same may be said of the naturalism of the architectural backgrounds as well as the antique formulae employed for the postures and movements of the figures. In a later manuscript such as the Lectionary of Henry II, on the other hand, linear qualities predominate, and the Ottonian genius has modified the naturalism of the antique model by emphasizing simplification, abstraction, and decorative symmetry. All of these last mentioned qualities are especially noticeable in the treatment of certain architectural formulae and natural details for which the Ottonian artists evolved from their antique models a treatment peculiarly their own. This latter point is stressed, for when the writer labels as Ottonian a scene on the Paliotto he means that it exhibits not only iconographic types which can be shown to belong to the distinctive repertory of Reichenau or its related centers but usually in addition a peculiar treatment of architectural or natural detail which, whatever its ancient antecedents, has assumed a form which may properly be called "Ottonian."

THE NATIVITY (Fig. 21). The Christ Child is shown lying in a crib in the center of the scene, while Mary, enthroned, sits at the right. From the left there approaches a figure wearing a small pointed cap and using his staff as a crutch. Behind the crib a shepherd raises his arms in wonderment and by his side the ass adores the Child. An ox reclines in front of the crib. In the two upper corners can be seen the battlements of a walled city, hanging as though suspended in the sky.

Perhaps the most unusual feature of this very unorthodox treatment of the Nativity theme is the ox which reclines *in front* of the crib. Many of the early Christian theologians mention the adoration of the ox and the ass,[70] but both animals were regularly represented from the genesis of Christian art on as standing *behind* the crib. Of the several hundred Nativity scenes listed by the Princeton Index of Christian Art, only two show the ox in front of the manger, the Salzburg Gospel Book, number 781, now in the Morgan Library,[71] and a Reichenau Collectarium, number 688, in the cathedral library at Hildesheim (Fig. 22).[72] To these two examples listed by the Index should be added a third miniature in a Gospel Book, also of Reichenau, number 218 in the Chapter library at Cologne.[73] All three of these examples are Ottonian, though the first two date in the early eleventh century. Moreover, one of these manuscripts, the Collectarium at Hildesheim, is in turn related to the Lectionary made for Henry II between 1002 and 1014, now in the Staatsbibliothek in Munich (Fig. 24).[74] A comparison of the Nativity scenes of these two manuscripts will show the banded manger, over which peers a long-eared ass, and the positions of Christ, Mary, and Joseph to be identical to the last detail. In the Lectionary, however, both the ox and the ass are placed behind the manger within the stable, and the place of the ox is taken by an angel with hands raised in wonder,[75] while the angels of the Collectarium have been shifted from the left upper corner to the right in order to give place in the Lectionary to a representation of the city of Bethlehem. This is the same miniature walled city, suspended in the sky, which we noted in the scene of the Nativity on the

70. E. B. Smith, *Early Christian Iconography*, Princeton, 1918, p. 20.

71. G. Swarzenski, *Die Salzburger Malerei*, Leipzig, 1908–13, pl. XVI (52).

72. F. C. Heimann, "Bilderhandschrift des XI Jahrhunderts in der Dombibliothek zu Hildesheim," *Zeitschrift für christliche Kunst*, III, 1890, p. 138. The photograph of the Nativity reproduced here is from the collection of the Princeton Manuscript Seminar. The Gospel Book of the Abbey of Poussay (Paris, lat. 10514) seems related to these two manuscripts in that it shows *both* the ox and the ass reclining in front of the crib; Sauerland and Haseloff, *Der Psalter Erzbischof Egberts von Trier*, pl. 54 (3).

73. This is manuscript number 11 of Vöge's list ("Eine deutsche Malerschule um die Wende des ersten Jahrtausends," *Westdeutsche Zeitschrift für Geschichte und Kunst*, Erg. Heft VII, Trier, 1891, p. 145).

74. G. Leidinger, "Das Perikopenbuch Kaiser Heinrichs II," *Miniaturen aus Handschriften der kgl. Hof- und Staatsbibliothek in München*, Heft 5, pl. VIII.

75. The peculiar position of this figure is to be explained by the fact that at some time in its descent this scene had an Annunciation to the Shepherds below it as in the Bamberg Apocalypse (cf. Wölfflin, *Die Bamberger Apokalypse*, p. 53). Thus the angel, now a detached and meaningless bust below the manger, originally was one of several who announced to the shepherds the birth of the Messiah. When the two scenes were separated the angel was preserved by mistake in the Nativity scene where it has no longer any real meaning.

FIG. 15. Aachen, Cathedral Treasury, Gold Altar-Frontal, Central Portion

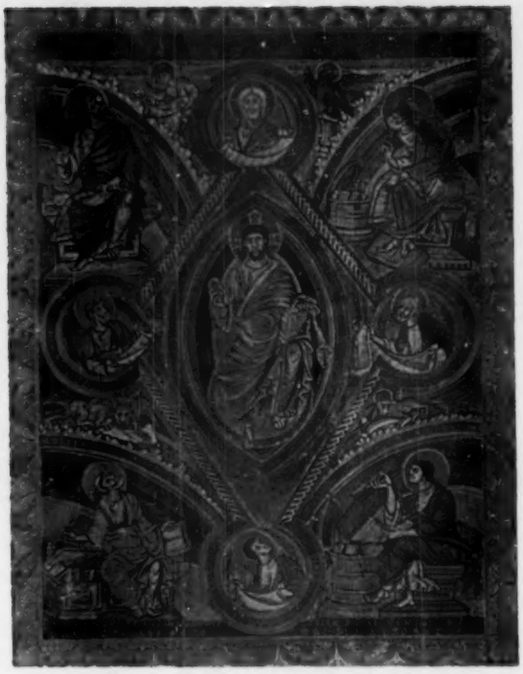

FIG. 16. Munich, Staatsbibl.: Clm. 14000, Codex Aureus, Fol. 6v.

FIG. 17. Munich, Staatsbibl.: Cover of Codex Aureus, Detail

FIG. 18. London, National Gallery: Detail of Painting showing Altar-Frontal of Saint-Denis

FIG. 19. Bamberg, Staatsbibl.: Ms. 140, Apocalypse and Lectionary, Fol. 14r.

FIG. 20. Back of Paliotto: St. Ambrose Seeks Emilia and Liguria

FIG. 21. Front of Paliotto, Nativity

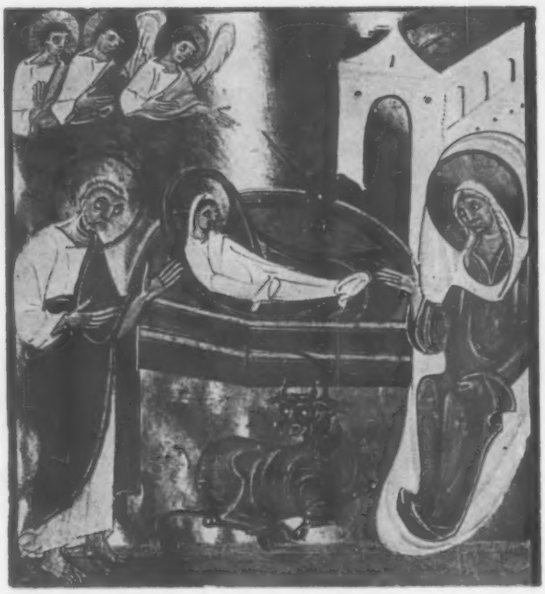

FIG. 22. Hildesheim, Cathedral Treasury: Ms. 688, Collectarium, Nativity, Fol. 36v.

FIG. 23. Hrádek, Harrach Collection, Ivory Diptych, Detail

FIG. 24. Munich, Staatsbibl.: Clm. 4452, Lectionary of Henry II, Nativity, Fol. 9r.

FIG. 25. Front of Paliotto, Presentation in the Temple

FIG. 26. Munich, Staatsbibl.: Clm. 4452, Lectionary of Henry II, Presentation in the Temple, Fol. 35v.

Paliotto, save that on the altar there is not one representation of Bethlehem, but *two*. The explanation of this doubling of the city required by the text may be derived from several similar cases in Ottonian manuscripts.

The classic ancestors of the diminutive walled cities found so frequently in Reichenau manuscripts[76] may be found in Asia Minor as early as the fifth century B.C.[77] From classic art the iconographic formula entered early Christian manuscripts like the Rossano Gospels, the Sinope Fragment or the Vienna Genesis, and it was apparently from such a source that the Ottonian artists took their extensive cycle of New Testament themes. But in copying the iconography the miniaturists of the late tenth and eleventh centuries isolated the various elements, simplified them, and then recombined them in a composition whose principal source of unity is its feeling for decorative symmetry. Specifically, the Ottonian artists transformed their painted architecture from something architectonic and essentially natural, as in classic and even early Christian art, into something which is primarily decorative. Thus the walled city, which should stand upon a hill as it does in the Vienna Genesis, or appear above the crest as in the scene of St. Ambrose fleeing Milan in scene 3 (Fig. 20) on the back of the Paliotto, by the Ottonian artists is irrationally "suspended" in the sky, as we find it in the Lectionary of Henry II (Fig. 24). Here only the cusped base remains to remind us that formerly the city stood upon a hill. Once he had begun to think of his architecture primarily as decoration, the Ottonian artist was quite willing to modify or multiply it with little regard for the requirements of the text it was intended to illustrate. Of particular interest for their connection with the Paliotto are two scenes, one from the Aachen Gospels of Otto[77a] and the other (Fig. 31) from the same Cologne Gospel Book which contains the scene of the Nativity with the ox beneath the crib, noted above, in both of which may be found two suspended cities like those on the Paliotto. These two scenes of the Mother of James and John Asking Seats in Heaven for Her Sons and the Healing of the Leper are regularly rendered either without an architectural background, or with a single walled city to represent in the one case "a certain city" mentioned by Luke (v. 12) and in the other, Jerusalem. It seems altogether likely, therefore, that only a desire for a symmetrical composition led the artists in these two cases to multiply the architecture of the model, rendering thereby two cities, although the text requires only one. It is this desire for symmetry which must likewise account for the double representation of Bethlehem on the Paliotto.

In addition to the "suspended" rendering of the city of Bethlehem, the Lectionary of Henry II (Fig. 24) shares with the Paliotto another point of similarity, namely the upraised arms of the angel in front of the manger, which correspond with that of the shepherd who stands behind the crib in the scene on the Paliotto. Almost as rare in a Nativity scene as an ox which lies in front of the manger is a figure which stands behind it. We meet such a figure in the Nativity scene of a six-part plaque in the Harrach Collection (Fig. 23),[78] except that the figure is here not a shepherd, as on the Paliotto, but an angel. In the Harrach example, moreover, Mary is seated as she is on the Paliotto, while above is a "suspended" city, which, it was suggested before, is often indicative in itself of Ottonian date. The problem of symmetry which led the artist of the Paliotto to double the representation of Bethlehem is solved on the ivory by placing the single city required by the text in the center of the composition, rather than at the side. The Harrach plaque, it is true, Goldschmidt numbers among the examples of his Ada Group, as he does the Spinning Virgin in the Morgan Collection of the Metropolitan,[79] to which the Harrach ivory is clearly linked by reason of the similar scale-like treatment of the columns of the architectural setting. More recently, however, C. R. Morey[80] has defended the position that the Morgan plaque is of the same Ottonian date as the Gero Codex[81] which originally it seems to have adorned, and not, as Goldschmidt preferred to believe, a Carolingian piece reemployed in Ottonian times. If we accept Morey's dating of the Morgan plaque and accordingly remove it from the Ada Group, then clearly it will take with it the Harrach ivory as well. A further study of the scene of the Crucifixion on the latter, to which we shall presently return, will only serve to confirm its Ottonian date. In view of the fact that the only two examples which we are able to point to as being similar in gesture and position to the figure which stands behind the altar on the Paliotto are both angels, we are perhaps justified in suspecting that the shepherd of the Paliotto had for its inspiration an angel like that on the Harrach plaque or in the Lectionary of Henry II.

76. See, for example, S. Beissel, *Geschichte der Evangelienbücher in der ersten Hälfte des Mittelalters*, Freiburg im Breisgau, 1906, pls. XI, XIV, XVI, or G. Leidinger, "Das sogenannte Evangeliarium Kaiser Ottos III," *Miniaturen aus Handschriften der kgl. Hof- und Staatsbibliothek in München*, I, pls. 17, 19, 20, 27, 28, 36, 39, 41, 45.

77. F. M. Biebel, "The Walled Cities of the Gerasa Mosaics," *Gerasa, City of the Decapolis*, ed. C. H. Kraeling, New Haven, 1938, pp. 341 ff.

77a. Beissel, *op. cit.*, pl. XI.

78. A. Goldschmidt, *Die Elfenbeinskulpturen aus der Zeit der karolingischen und sächsischen Kaiser*, Berlin, I, 1918, fig. 18.

79. *Ibid.*, pl. 12.

80. C. R. Morey, "The Covers of the Lorsch Gospels," *Speculum*, IV, 1929, p. 423. In his review of Morey's catalogue of the Vatican ivories, Goldschmidt himself seems to accept the Ottonian dating of the group of ivories to which the Morgan plaque belongs (*Speculum*, XIV, 1939, pp. 254 ff.).

81. So-called because it was illuminated for Gero, Archbishop of Cologne from 969 to 976; now No. 1948 of the Grand-ducal Library, Darmstadt. Cf. A. Schmidt, *Die Miniaturen des Gero-Codex*, Leipzig, 1924.

We have now accounted for all the peculiarities of the scene of the Nativity except the figure on the left who wears a small conical cap and leans so heavily upon his staff. As in the case of the other elements of this scene, iconographic parallels to this last figure may be found among Ottonian manuscripts where we meet numerous examples of shepherds who wear a small pointed cap and carry or lean upon a staff, as in the Sacramentary in the Vatican Library, lat. 3548.[82] Clearly, the artist of the Paliotto has chosen his figure from such a miniature as this, which included with the Nativity the Annunciation to the Shepherds. In the case of the Paliotto, however, the figure in question has been given a beard, and it is possible that the artist intended that he represent, not a shepherd, but Joseph, for the latter's presence at the Nativity is a rule almost without exception in Christian art.

THE PRESENTATION OF CHRIST IN THE TEMPLE (Fig. 25). In this scene, Mary, accompanied by Joseph on the left, is about to place the infant Christ in the outstretched arms of the aged Simeon, at whose side stands the prophetess Anna. We are reminded that this is the Temple at Jerusalem by the diminutive altar and the arches hung with *coronae* above. This scene on the Paliotto finds in two Ottonian manuscripts of the early eleventh century parallels so close that all three examples must be thought of as originating from a common source. These manuscripts are the Sacramentary of Reichenau[83] and the Lectionary of Henry II (Fig. 26).[84] If the Temple roof in the scenes from the two manuscripts be thought away, then, indeed, their similarity to the scene on the Paliotto becomes so obvious as to make all comment unnecessary; it is enough to invite the reader to compare them. Not only are the number and relative positions of the figures the same in each case, but even the small round and oblong windows of the architectural setting are repeated. Only one important detail the Presentation on the Paliotto does not share with either the Sacramentary or the Lectionary: the prophetess Anna on the Paliotto holds what appears to be a crown. The awkward position of her hand, however, suggests that this is indeed an innovation by the artist of the Paliotto. This fact, coupled with the apparent absence of this attribute of Anna's in other scenes of the Presentation of any period whatever, suggests further that the artist of the altar may have mistaken for a crown what in his model was in reality a fold of the mantle. The relief of the Paliotto is not the only example of North Italian imitation of Ottonian iconography in respect to this scene; the same composition recurs c. 1000 in the Sacramentary of Ivrea (L. Magnani, *Le miniature del Sacramentario d'Ivrea*, Città del Vaticano, 1934, pl. XLVI).

CHRIST CALLED BY JAIRUS (Fig. 46). This scene has been variously identified as the Raising of Lazarus, the Calling of Matthew, or the Healing of the Ruler's Son.[85] But the chlamys with its richly ornamented hem, which the figure at the left wears, leaves no doubt that the scene concerns a man of rank and probably "the ruler of the synagogue named Jairus" who besought Christ to restore his daughter to life (Mark, v, 22). The Saviour is represented here as he raises his right hand in the classic speaking-gesture and is followed by two apostles, one of whom is unmistakably Peter. The type for the small, gabled building behind Jairus on the left we noted in the Nativity scene of the Collectarium at Hildesheim (Fig. 22) and will meet again in the scene of the Miracle at Cana on the Paliotto (Fig. 38). The rocky foreground, which is given so prominent a place in this scene, is met here on the Paliotto for the first time but is repeated in the scene of the Transfiguration (Fig. 27) and with the figures of the apostles (Fig. 1).

To find a close parallel to this scene on the Paliotto we must go outside the minor arts of ivory carving and manuscript illustration to the monumental frescoes of the church of Saint George at Reichenau-Oberzell. Today these tenth-century frescoes are in a ruined condition as can be seen from the reproductions published by Sauer.[86] It is possible, however, that more was visible when sixty years ago Kraus saw and drew them.[87] Both of these writers identify the scene on the south wall which concerns us here as the Healing of the Woman with the Issue of Blood. But in this they seem to be in error. On the basis of Kraus's own restoration (Fig. 30) the figure on the left was not a woman, but a man, as clearly indicated by his short clothing which reveals his legs and feet. Considering that the remainder of the scene is taken up with the actual healing of Jairus' daughter, we may with certainty identify the left portion as Jairus Seeking Christ.[88] Of particular importance is the position of the figure of Christ. In both the Reichenau-Oberzell example and on the Paliotto the Saviour's right

82. A. Goldschmidt, *Die deutsche Buchmalerei*, Florence, 1928, II, pl. 110(a). The codex is of Fulda origin and of the eleventh century; it may be noted that the shepherds are bearded in tenth-century Fulda Nativities, as for example the miniature on fol. 11v of the Göttingen Sacramentary, J. Richter and A. Schönfelder, *Sacramentarium Fuldense saeculi X*, Fulda, 1912, pl. 10.

83. V. Leroquais, *Les sacramentaires et les missels manuscrits des bibliothèques publiques de France*, Paris, 1924, pl. XXVI.

84. Leidinger, *op. cit.*, pl. 13.

85. Cf., for example, Deckert, *Marburger Jahrbuch*, I, 1924, p. 269; Zimmermann, *Oberitalische Plastik*, p. 185; Porter, *Lombard Arch.*, II, p. 589; Molinier, *Histoire générale*, IV, p. 81.

86. J. Sauer, "Die Monumentalmalerei der Reichenau," *Die Kultur der Abtei Reichenau*, Munich, 1925, II, pp. 902–955.

87. F. X. Kraus, *Die Wandgemaelde in der S. Georgskirche zu Oberzell auf der Reichenau*, Freiburg im Breisgau, 1884, pl. IV.

88. Kraus called this the Healing of the Woman with the Issue of Blood apparently because that incident occurred between the time Jairus spoke with Christ and the actual arrival of Our Lord at the room where the dead girl lay. The Woman with the Issue of Blood, however, was healed specifically by touching Christ's garment and is regularly so represented. Jairus, who only spoke with Christ, is clearly represented here.

hand is raised while his left appears to be concealed beneath the pallium, the other end of which in both cases is shown blowing in the wind.[89] At Reichenau-Oberzell, as well as on the Paliotto, Christ is followed by two apostles, one of whom carries a scroll and in both examples can with certainty be identified as Peter. Even the small gabled building of the fresco is repeated with all its distinguishing features by the artist of the Paliotto. Whereas the important part of the biblical episode is the actual miracle of restoring the dead daughter to life, and not Christ's meeting with Jairus, it is probably the former which the artist of the Paliotto intended to represent. In all likelihood his model included the full story as it is represented at Reichenau-Oberzell, but because of the restricted space on the Paliotto he was able to reproduce only a portion of it there.

THE TRANSFIGURATION (Fig. 27). In this panel Christ, holding an open book in His left hand and flanked by Moses and Elias, stands transfigured before the all but blinded Peter, James, and John. The version of the Transfiguration in which Christ is shown rayed but without a mandorla is comparatively rare in Christian art, there being few, if any, certain examples which can be dated prior to the eleventh century. This might almost suggest that this scene is a later addition, were it not for the consistent style which it shares with the other scenes on the front of the Paliotto, and for a number of examples of the Transfiguration in Ottonian manuscripts, which, if not identical with the Paliotto scene, have several points of correspondence. Such examples occur in a Lectionary in Berlin (Fig. 28),[90] the Gospel Book of Henry III in the Escorial (Fig. 32),[91] and in the Aachen Gospel Book of Otto.[92] The lumped ground plane which we met in the previous scene, is repeated in all these Ottonian miniatures. Indeed the "suspended city" and uneven ground plane are so common in the manuscripts of the Ottonian period that they constitute virtually a signature. Perhaps with these two persistent features should be mentioned the forked ray which appears in both the Berlin Lectionary and the Gospel Book of Otto, and which the artist of the Paliotto may have also tried to use. But by far the most striking similarity between the Paliotto scene and the Ottonian manuscript examples (Figs. 28 and 32) lies in the two beardless and one bearded apostle. In the traditional scheme, two are bearded, one beardless, but in Ottonian times the iconography of the Transfiguration presented this new and unusual feature.

THE CLEANSING OF THE TEMPLE (Fig. 29). Christ, followed by three disciples, is represented in this panel as he drives the merchants and money changers from the Temple. The two hucksters shown here make no effort to hide their fear of the whip or their haste to be elsewhere. In the speed and suddenness of their departure a table is overturned and a number of coins spilled on the ground, while in the lower right corner a young bullock under cover of the confusion makes his escape.

The existence of this scene as part of the Reichenau repertory is shown by its presence in the Gospel Book of Otto III, now in the Staatsbibliothek at Munich. But, on the other hand, since this subject is also represented in all its general features in the Rossano Gospels of the sixth century, there is no reason why it might not be found, approximately as here rendered, on any monument before or after that date. It is included for example in the repertory of Saint-Denis, being one of the subjects on the golden cover of the Codex Aureus at Munich. What is of importance here is the treatment which the scene on the Paliotto has received, and especially the way in which the architecture of the Temple has been made to fill the whole field. It is instructive to compare on this point the same scene as represented on an ivory of about 900 (Fig. 39)[93] with that in the Gospel Book of Otto III (Fig. 33).[94] Although deriving ultimately from a similar source, the two renderings of the same scene differ principally in that the Ottonian artist of the Gospel Book has enlarged the architectural setting until it fills, or nearly so, the entire page and has then placed his figures within the symbolic space thus created. The Carolingian artists, although usually content to locate their figures within a building by representing them before it certainly knew how to render more or less realistic interiors often in approximately correct perspective. But it remained the peculiar accomplishment of the Reichenau artists with their passion for simplification and their desire to achieve a decorative unity, which we have noted before, to suggest the interior of a building by showing simply a row of columns supporting arches. Such architectural treatment we have noted previously in the scene of the Presentation on the Paliotto (Fig. 25) as well as in the two Ottonian versions clearly related to it (Fig. 26).[95] The appearance of this distinctive architecture in the scene of the Cleansing of the Temple is in turn stressed here, for with the exception of the two scenes on the Paliotto, its appearance elsewhere seems to be confined to manuscripts of certain Ottonian date.

THE HEALING OF THE BLIND MAN (Fig.

89. To judge from Kraus's drawing of this scene the Christ of the Oberzell fresco appears to have *two* left hands, the one concealed beneath the pallium, the other holding a roll, and something of this same confusion seems also to be present in the scene on the Paliotto.

90. H. Janitschek, *Geschichte der deutschen Malerei*, Berlin, 1890, pl. opp. p. 90. A discussion of Romanesque Transfigurations is given by P. Clemen, *Die romanische Monumentalmalerei in den Rheinlanden*, Düsseldorf, 1916, pp. 301 ff.

91. A. Boeckler, *Das goldene Evangelienbuch Heinrichs III*, Berlin, 1933, pl. 85, written for Henry III between 1043 and 1046.

92. Beissel, *op. cit.*, pl. x.

93. Goldschmidt, *Elfenbeinskulpturen*, I, fig. 82.

94. Leidinger, "Evang. Ottos III," pl. 32.

95. For the other example see note 83.

35). In many ways the iconography of this scene is the most perplexing of any on the Paliotto. There can be no doubt of the subject represented; it is the Healing of the Blind Man at the Pool of Siloam. Christ, followed by three disciples as in the previous scene, is pictured in the act of touching the eyes of the blind man. In the upper right corner the blind man, now healed, washes at the pool of Siloam. Behind him is another of the small "suspended" cities which we met and identified as Ottonian when discussing their appearance in the scene of the Nativity, while in the upper left-hand corner is just visible a small gabled building like that in the Paliotto's rendering of Christ Called by Jairus (Fig. 46). But by far the most unusual feature is the beehive hut which looms so large at the right, and which we must presume to be the uninviting abode of the blind man. Since the Biblical text illustrated makes no mention of the blind man's house, we can be certain that its inclusion here is an error, the more so since a search of published Carolingian and Ottonian work has failed to reveal this peculiar detail, the best parallel for which is furnished by the shepherds' huts in miniatures of the Codex Romanus of Vergil in the Vatican Library (fifth century). A second unusual feature of this scene as rendered on the Paliotto is the treatment given the fountain at which the blind man bathes his eyes. The water comes from a naturalistic spout reminding one of the lion's head used in corresponding fashion in the Healing of the Blind as depicted among the nave frescoes of Sant' Angelo in Formis. The artist of the Paliotto has, however, not only chosen as the subject of his water spout what appears to be a small pig, but he has placed the tiny animal upon a column. There exists one other version of this scene in which there appears a naturalistic water spout placed upon a *column*, viz., the rendering of the scene in the Codex Egberti, except that in this case the spout is not a pig but a peacock (Fig. 37).[96] But perhaps the most unusual feature of the scene in the Codex Egberti is the extremely high form which has been given to the bowl of the fountain. Here there is no longer any semblance of the *pool* at which the blind man was told to bathe his eyes, and indeed it almost seems as though he were to be denied ready access to the water, since it is so nearly beyond his reach. The version of the Codex Egberti is thus nearly as unorthodox as that of the Paliotto, to which it is linked by reason of the naturalistic water spout mounted on a column, common to both renderings. This fact, together with the liberty our artist took by introducing the small pig into his scene, makes one wonder if he has not also, either purposely or by error, transformed into a beehive hut the high bowl of the fountain, which in his model, since it was related to a common Ottonian source, may have resembled that of the Codex Egberti. In any case, the confused composition of this and the preceding scene, as well as the inferior technique, suggests that both of these plaques are the work of a pupil, or at least a workman less skillful than the master of the Transfiguration, and capable of misunderstanding his models. Probably in addition to the scene of the Transfiguration there should be listed as by the master the entire central portion of the front of the Paliotto, the Presentation and the Crucifixion. The remaining scenes seem to have been done, at least in part, by an assistant.

THE CRUCIFIXION (Fig. 34). It was this scene which, more than any other, led Kondakov to doubt the Carolingian date of the Paliotto. Broadly speaking, it is possible to distinguish in Christian art two basically different ways of representing the Crucifixion, each way corresponding to a different point of view. On the one hand, the Byzantine artists with their strongly theological bias chose to emphasize the transcendental aspect of the event. In a Byzantine work such as the famous mosaic at Daphni the Crucifixion is the Atonement, a cosmic theme of significance for all men in all ages and therefore to be represented simply, without any of the details connoting particular place or time.

The second way of representing the Crucifixion was characteristic of the early Christian art on which Ottonian iconography is based and it is this which we find on the Paliotto. Here the Crucifixion is not so much an iconic symbol as an historical scene in which are included all the particular figures recorded in the Gospels. Not only the Virgin and John are present, but on Christ's right stands Longinus about to pierce the Saviour's side, while on His left may be seen Stephaton in the act of offering Him the vinegar-filled sponge. Nor are Mary and John simply witnesses of the Divine Sacrifice as they are in Byzantine ivories and mosaics. Here they hold their mantles to their faces in personal grief. The limited space and the nearly square shape of the Paliotto plaque have forced the artist to omit the figures of the two thieves which are regularly found in a full, historical Crucifixion, like that in the eleventh-century Gospel Book of Otto III.[97] In this case the lower end of the cross, pointed so that it might be driven into the ground, is left visible, and below two soldiers divide Christ's garments. The two upper corners contain the personifications of the sun and moon who veil their faces, symbolizing an eclipse. This feature was again misunderstood by the artist of the Paliotto, who combined the symbols for the sun and moon with the sorrowing angels which he placed above the arms of the cross. In the halo of the angel on the right may clearly be seen a crescent, symbolic of the moon.

The Crucifixion has so continuous an iconographic tradition that it offers little aid in dating or attribution to school, but a good parallel to the scene on the Paliotto may

96. Kraus, *Die Miniaturen des Codex Egberti*, pl. XL.

97. Leidinger, *op. cit.*, pl. 50.

FIG. 27. Front of Paliotto, Transfiguration

FIG. 28. Berlin, Kupferstichkabinett: Ms. 78. A 2, Lectionary, Transfiguration, Fol. 22r.

FIG. 29. Front of Paliotto, Cleansing of the Temple

FIG. 31. Cologne, Cathedral Library: Ms. 218, Gospel Book, Healing of the Leper, Fol. 31r.

FIG. 30. Reichenau-Oberzell, Saint George: Drawing after Kraus, Christ Called by Jairus

FIG. 32. Escorial, Real Bibl.: Vit. 17, Gospel Book of Henry III, Transfiguration, Fol. 73r.

FIG. 33. Munich, Staatsbibl.: Clm. 4453, Gospel Book of Otto III, Cleansing of the Temple, Fol. 120v.

FIG. 34. Front of Paliotto, Crucifixion

FIG. 35. Front of Paliotto, Healing of the Blind Man at the Pool of Siloam

FIG. 36. Bamberg, Staatsbibl.: Ms. 140, Apocalypse and Lectionary, Crucifixion, Fol. 68v.

FIG. 37. Trier, Staatsbibl.: Codex Egberti, Healing of the Blind Man at the Pool of Siloam, Fol. 50r.

FIG. 38. Front of Paliotto, Miracle at Cana

FIG. 39. Würzburg, Universitätsbibl.: Ivory Plaque, Detail, Miracle at Cana, Cleansing of the Temple

be found in an Apocalypse and Lectionary at Bamberg (Fig. 36).[98] Here, as on the Paliotto, the scene has been reduced, omitting thereby the figures of the thieves and the soldiers beneath the cross. Here, too, Christ wears only a loin cloth, as He does on the Paliotto, instead of the sleeved tunic of the Gospel Book. But in neither of these examples do we find the sorrowing figures of Mary and John which are present on the Paliotto. Such a parallel, however, may be found on the Harrach ivory (Fig. 23), which has previously been discussed in connection with the scene of the Nativity and which, it was suggested then, should be dated in Ottonian times. The very broad blank titulus which is found on the Paliotto is a prominent characteristic of the historical Crucifixions of Ottonian date, as is illustrated by the Crucifixions in the Gospel Book of Otto III and the Bamberg Apocalypse and Lectionary.

THE APOSTLES (Fig. 1). In the central panel of the front of the Paliotto the Twelve Apostles surround the enthroned figure of their Master, arranged in groups of three. They are here indistinguishable for lack of attributes, save for Peter, in the upper left corner, who holds the keys. The great clods of earth on which the apostles stand have previously been identified as a characteristic invariably Ottonian. A broken ground plane was certainly used on many of the early Christian sarcophagi and something of the sort may be seen in Carolingian manuscripts, but it is not until the late tenth century that uniformly shaped clods of earth are piled one upon the other until, as here, they fill nearly a third of the picture field. This peculiar feature may well have had its origin in the manuscripts as a means of filling the additional space caused when the frieze-like compositions intended to be placed in the text, as we find them in the Codex Egberti (Fig. 37), were transformed into oblong, full page pictures like those of the Gospel Book of Otto III (Fig. 33). Nor, save for the simple border of heads in the Sacramentary of Marmoutier (fol. 11v.) or in the mosaics of S. Prassede (817–824), do the apostles seem to have been accorded a place of their own in Carolingian art. The explanation of this may be that the twelve achieved prominence in Romanesque and Gothic art only via historical scenes of which they were an important part, such as the Pentecost or Ascension. Their absence in Carolingian art is therefore in accord with the relative scarcity of New Testament illustration in that period. It was thus only in Ottonian times that the extended cycles of New Testament scenes brought the apostles again[99] to the fore, as we meet them, for example, in scenes of the Pentecost.[100] Here, too, the apostles, including Peter, simply carry books and scrolls as they do on the Paliotto. The more progressive artist of the Munich Gospel Book (Fig. 41)[101] has placed the Holy Spirit in the center of the page and arranged the apostles in groups of three about it, making a quatrefoil composition. From this it is a simple step to give the apostles a place in art in their own right, as we find them on the Paliotto, though even here, since they surround an enthroned Christ, the ensemble might be regarded as a Last Judgment, as at Reichenau-Oberzell. In this case, the Apostles as assessors of Christ in Judgment are a feature of Byzantine renditions of the *Dies Irae* quite in accord with the more frequent borrowing of Byzantine iconography which distinguishes Ottonian from Carolingian art.

The iconography of the three plaques which remain to be discussed for the bearing which they have upon the date and provenance of the Paliotto, seems to have no certain connection with Ottonian art, or at least with the Trier-Reichenau tradition to which the other eight plaques have been related. Time is taken here to discuss them briefly, however, not only for the sake of completeness, but also to show that, while they do not add materially to the evidence of Ottonian date for the front of the Paliotto, they are not inconsistent therewith.

THE ANNUNCIATION (Fig. 40). Gabriel, carrying a long, cross-surmounted staff, makes his dramatic announcement to Mary, seated in an aedicula on the right. The Virgin is here represented as interrupted in the act of spinning, for she holds a spindle in her left hand. Although examples of this type of Annunciation are frequent in Eastern art, they are rare in the art of the West prior to the beginning of the tenth century, and only two instances of the Annunciate holding the spindle are found among examples that can with any certainty be called Carolingian (mosaic of SS. Nereo ed Achilleo, Rome, 795–816; ivory diptych from Genoels-Elderen, Brussels, Musée des Arts Décoratifs, assigned to the late eighth century).[102]

98. Wölfflin, *Die Bamberger Apokalypse*, pl. 54.

99. The apostles appear frequently, of course, on early Christian sarcophagi, but here again only as figures accessory to Christ as Teacher or as giving their missions to the twelve.

100. Wölfflin, *op. cit.*, pl. 57.

101. Vöge, *Eine deutsche Malerschule*, p. 275.

102. An apparent exception is the plaque now in the Morgan Collection of the Metropolitan which Goldschmidt numbers among the examples of his Ada Group, and which, although not an Annunciation, shows the Virgin seated in an architectural setting and holding in her right hand a short, cross-surmounted staff and in her left a spindle. We have previously noted (p. 37 above) when discussing the relationship of the Morgan plaque to the Harrach diptych the suggestion of C. R. Morey that the former be dated in the tenth century, rather than in the ninth. If we accept such an Ottonian date for the Morgan plaque, it may then be grouped iconographically, on the basis of the spindle which the Virgin holds, with half a dozen scenes of the Annunciation on ivories published by Goldschmidt (*Elfenbeinskulpturen*, I, nos. 27, 95g, 96d; II, nos. 105e, 140; III, no. 38). Probably none of these examples antedates 900 A.D. and many of them are placed by Goldschmidt well into the tenth century or later. In each case, as with the box in Braunschweig (Fig. 42), not only is the Virgin represented with one or more spindles, but she is also shown enthroned in an architectural setting, as in the scene on the Paliotto. Although it might of course be argued that there may have been Carolingian versions of

THE MIRACLE AT CANA (Fig. 38). Christ's first miracle, as recorded in the Gospel of Saint John, was to turn water into wine at the request of His Mother. Mary is here shown standing at the extreme right, while the smaller figure of Christ may be seen within the doorway of the house. Two servants attend the wine jars, and in the background the Master of the Feast raises the drinking horn to his lips, while another figure, of whom only the head is visible, looks on. Clearly the artist had in mind a scene of the Cana miracle like that on an ivory in the University Library at Würzburg (Fig. 39), but because of the limited space allowed on the Paliotto he was forced to omit the table and the wedding guests and to be content to suggest them by including only the Master of the Feast. Goldschmidt attributes the Würzburg ivory to the school of Metz and dates it, together with a similar plaque in the Kaiser Friedrich Museum in Berlin, about 900. Such a date is consistent with the opinion of Baldwin Smith[102] that the extended iconography of the Cana miracle which includes the wedding guests and the Master of the Feast is a Byzantine feature not appearing in the West before the end of the ninth century. Nor is the fuller iconography of the Miracle at Cana found in any of the Ottonian manuscripts which have been discussed for their relationship to the other scenes on the front of the Paliotto. The probable explanation of this is that the model used as the basis of the Trier-Reichenau iconography seems to have been an early Christian one in which, as we would expect, the rendering of the Miracle at Cana contained only the figures of the Miracle-worker and His Mother and omitted accordingly the wedding feast and its accompanying architecture. As was the case with the Annunciation, the iconography of this scene of the Cana miracle, while it does not belong to the Reichenau tradition, would seem nevertheless to indicate a date for our relief sometime after 900, when the extended version of the theme was becoming popular.[104]

THE ENTHRONED CHRIST (Fig. 1). In the center of the Paliotto is an oval plaque containing a figure of Christ, bearded and seated on a throne. In His right hand He holds a cross-surmounted staff and with His left supports a book upon His knee. The background is decorated with a number of jewelled stars. Sir Martin Conway[105] has compared this figure of Christ to that on the cover of the Codex Aureus (Fig. 17) which shares with the Christ of the Paliotto the book and the stars of the background, but unlike the Christ of the Paliotto has neither beard nor crossed staff. Both of these features are found, however, on the old reredos of Saint-Denis (Fig. 18). This monument, which Conway[106] and later Friend[107] have attributed to the school of Saint-Denis, was melted down for its gold during the French Revolution, but its general character is preserved by a fifteenth-century Franco-Flemish painting now in the National Gallery at London. Apparently in the Carolingian works of Saint-Denis, as in later Ottonian times, the two types of Christ, the one beardless as on the Codex Aureus cover, the other bearded as on the altarpiece of Saint-Denis, existed side by side. On the other hand, the Christ of the Paliotto lacks the double mandorla of the altarpiece, which was the invariable accompaniment of the enthroned Christ of the Saint-Denis school, and the general character of the Christ-type of the Codex Aureus is quite separate from that of the Paliotto. A much better comparison might be made between the central portion of the front of the Paliotto and the gold altar-frontal of Aachen (end of the tenth century; Fig. 15) both as regards the Enthroned Christ and his jewelled mandorla, the four evangelistic beasts surrounding him, and especially the lay-out in panels wherein the two altars so much resemble one another. The stylistic affinity with Saint-Denis felt by Conway is not to be denied, but this is a survival that is not uncommon in Ottonian art, though more to the fore in the schools of Fulda and Cologne than at Reichenau. The Paliotto reliefs exhibit in fact the same reduction of the lively drawing of the Carolingian school to the more sober silhouettes which characterize Ottonian versions of Reims–Saint-Denis tradition, and in this respect bring stylistic support to the exact iconographic parallels which we have seen to exist between a number of the scenes on the front of the Paliotto and monuments of certain Ottonian date. In appraising the style of the front of the altar, moreover, consideration should be given to the material from which the plaques in question are made, for it is apparent that not a little of the seeming vivacity of the style is in reality the product of injuries and age acting upon the extremely ductile quality of the very thin gold plates. When this accidental surface movement has been discounted, the majority of the scenes on the front of the altar contain nothing

the spinning Virgin which have been lost, still, had we to date the Metropolitan plaque on the basis of extant monuments alone, the popularity of this rendition after 900 is reason to ascribe it to the tenth.

103. *Early Christian Iconography*, p. 93 and table. Of early Christian examples of the Cana miracle, a lost mosaic of S. Sergius at Gaza (sixth century) included the wedding feast, and this and the *architriclinus* are depicted in the miniature of the scene in Leningrad XXI (lectionary), a manuscript variously dated from the eighth to the tenth century.

104. The full representation is found on a Saint-Denis ivory in the British Museum (Goldschmidt, *Elfenbeinskulpturen*, I, no. 46) and in tenth-century miniatures of the Fulda school (e.g. the Sacramentary of Göttingen, Richter and Schönfelder, *Sacrament. Fuldense*, pl. 16). Its appearance in the Sacramentary of Ivrea shows that it was known to North Italian iconography of the late tenth century (Magnani, *Sacrament. d'Ivrea*, pl. X).

105. "A Dangerous Archaeological Method — I," *Burlington Magazine*, XXIII, 1913, pp. 339 ff.

106. "Some Treasures of the Time of Charles the Bald," *Burlington Magazine*, XXVI, 1914–15, p. 236.

107. "Carolingian Art in the Abbey of Saint-Denis," *Art Studies*, I, 1923, p. 69.

which necessarily precludes their being an earlier version of a style of which the well-known Basel Altar (c. 1020) in the Cluny Museum is the principal later exponent.

* * * * *

From the foregoing analysis of the style and iconography of the Paliotto, it seems clear that neither of the dates which have usually been proposed for the altar is entirely acceptable. If we must reject essentially the twelfth-century date suggested by Kondakov and Zimmermann, we must also recognize that the traditional ninth-century one defended so uncompromisingly by Molinier and others is likewise in need of modification. Indeed, it is now apparent that the very reason that the altar has been the subject of so long a controversy is that both of these views are partially right but neither of them entirely so. The error into which archaeologists have fallen is that of assuming it was necessary to choose absolutely between an earlier date and the later one and of not recognizing, therefore, that the only satisfactory explanation must involve both.

The similarity of the style of lettering of the dedicatory inscription to that current in the ninth century is presumptive evidence for a Carolingian dating. It is true that those verses which mention Angilbert by name have been restored, but there remains the medallion containing the inscribed "portrait" of that personage shown presenting the altar to Saint Ambrose as incontrovertible evidence of his connection with the Paliotto. Linked by clear stylistic and iconographic similarities to this medallion are all the plaques of the sides and back of the altar. And while there are no close parallels to the style of the Paliotto among extant Italian works, there are a number of both stylistic and iconographic affinities between the altar and Frankish works of the ninth century, notably those of Tours. Thus the available evidence, documentary, stylistic, palaeographic, and iconographic unites to reaffirm the original association of the altar with the name of Angilbert as well as its general Carolingian date of origin. The more specific date of 835 must be discarded as resting upon a document of which the authenticity cannot be proved and which by virtue of the circumstances under which it appeared there is good reason to regard as at least a partial forgery. A date shortly after Angilbert's death seems indicated by the praise accorded him in the dedicatory inscription. Consistent with this interpretation are the suggestions that "dicavit" in the inscription be translated by "commission" rather than "dedicate," and that the square nimbus which Angilbert wears be regarded as a mark of distinction rather than as an indication of a living person. In the last analysis, however, it is not the specific year of origin, but rather the general mid-ninth-century origin of the Paliotto which is here emphasized, for any account of the altar must take this as its starting point. The alternative as chosen by Zimmermann and Porter is to bring into existence a hypothetical copy of the original altar for which there is no objective evidence.

But while reaffirming the traditional ninth-century date of the Paliotto, we recognize that there is much to support the view that the altar cannot be entirely Carolingian. All of the evidence for this, however, is confined to the scenes on the front of the altar. Fortunately, the complete lack of parallels for the iconography of those plaques among extant ninth-century monuments is fully compensated by a convincing similarity with other works of Ottonian date. A judgment based on iconography is especially valid when applied to Ottonian works of art, for the great majority of Ottonian monuments exhibit iconographic types that are consistent and uniform. The appearance, therefore, of this peculiar "Ottonian" iconography on the front of the Paliotto can only mean that the artist had access to Ottonian work in some form. The question of whether or not the artist of the front of the Paliotto might have used an earlier iconographic cycle which was later employed as model by the miniaturists of the Reichenau must be answered in the negative. The "suspended" cities, the lumped ground plane, and the distinctive treatment of architectural interiors, which we have noted on the Paliotto, all seem to be peculiar *developments* of the Ottonian artists themselves. It is more likely that since Ottonian manuscripts were widely exported it was from one of these that the artist of the front of the Paliotto took scenes such as the Calling of Jairus or the Presentation of Christ in the Temple.

Any judgment based on iconography is valid, however, only when it can be shown that the style of the monument in question is not inconsistent with the date indicated by the iconography. The hundred-year discrepancy between the dedicatory inscription on the back of the altar and the iconography of the repoussé plaques of the front would present an awkward dilemma were it not for the fact that this difference in iconography is also paralleled by a corresponding division in style. There are, of course, a number of similarities (such as the fluted nimbus) between the back and front of the altar, but these can be explained as the influence of the earlier work upon the later one. Indeed, it is quite possibly the desire of one of the artists of the front of the Paliotto to copy as nearly as possible the movement of certain of the figures on the sides and back which may account for what "illusionistic" quality there is on the front. We have remarked in this connection, however, that much of the apparent movement of the style of the front of the altar is only surface deep, the result seemingly of injuries and of age acting upon the very ductile thin gold plaques. Once the surface is discounted, there seems nothing in the basic structure of the figures or the facial type which would necessarily preclude their being of Ottonian date, and representing an earlier stage of the style that crystallizes in the Aachen and Basel Altars.

The Ottonian character of the front of the Paliotto becomes the more reasonable when we recall the artistic and political connection between Milan and the North during the period in question. Goldschmidt has localized at Milan a school of late tenth-century ivory carvers, while suggesting for them close connection with Reichenau. We know, moreover, that the Emperor Lothair (945–950) elected to be buried in Sant' Ambrogio itself, while in the fourteenth century Galvaneo della Fiamma recorded briefly the history of Sant' Ambrogio with these words: "It was founded by Saint Ambrogio; Pietro the Archbishop established the monastery; afterwards Angilbert caused the golden altar to be erected, and the emperors Otto I and Lothair and the Count of Campigono gave to it many possessions."[108] For Galvaneo, apparently, the gifts of the emperors were of equal importance with the gift by Angilbert of the altar. One wonders if perhaps one of the gifts of an emperor may not have been a gold antependium which in time was given the popular name of "Paliotto." However that may be, there seems to be only one interpretation which will explain adequately the Carolingian inscription of the back of the altar and the Ottonian iconography of the front, namely *that the two portions of the Paliotto are of different dates*, the back and ends of the ninth century, the front of the tenth. This fact must form the basis for a reconstruction of the history of the altar, but within the definite limits prescribed thereby there remain a number of questions which admit of several interpretations.

We should like to know, for example, whether the Ottonian front of the Paliotto should be regarded as an *addition* or simply as a *restoration*, as well as which of the Ottonian artistic centers was the source of the style exhibited by the panels of the front. In connection with the first of these problems, it may be pointed out that Angilbert is represented on the back of the altar as holding in his hands the Paliotto itself (Fig. 11). The visible side of the diminutive altar which he holds has on it a cross of which the arms are slightly splayed, as are the arms of the similar cross on the front of the actual Paliotto, a piece of evidence that can be interpreted in either of two ways. It might be suggested, for example, that it is evidence that the present Ottonian front is a restoration of an original Carolingian one, or, conversely, that this is a normal way to represent an altar in the ninth century and that the Ottonian artist derived his inspiration from the medallion. The cross on the model of the altar is in any case inconclusive as to date.

Of more importance for their bearing on these questions are the enamel bands which separate the repoussé plaques on all four sides of the altar and which add so greatly to the apparent unity of the work of art as a whole. On closer inspection, however, it can be seen that all of these enamels may be divided into two, or possibly three, divisions. The first of these groups is composed of enamels of extremely simple and unimaginative geometric design comprised largely of squares and circles (Figs. 1, 2, 13, 14, 46). In the second group (Figs. 46 and 49) are enamels of a wide variety of foliate design, quite unlike the first, while possibly a third group should be formed of those which show the central motif composed of gold rather than of enamel (Fig. 48). It is especially the second of these categories which interests us here, for the enamels of this group find among several of the works commissioned by Egbert of Trier (975–993) a number of singularly close parallels. We may compare, for example, motifs and color of the Reliquary of the Nail in the Cathedral Treasury of Trier (Fig. 47)[109] to similar colors and motifs used on the Paliotto (Fig. 46). In each case there is the same heart-motif and geometric figure, each used separately on the reliquary but combined on the Paliotto. This similarity between the Ottonian enamels and those of the Paliotto was noted nearly half a century ago by Bock,[110] while more recently Burger has remarked that the two groups of enamels resemble each other as closely "as one rectangle resembles another."[111] Similarly, we may compare several of the enamels on the cover of the Gotha Gospel Book made for Otto III between 983 and 991 (Fig. 51)[112] with those of

108. "Ordo istius ecclexie fuit talis: quia beatus Ambroxius iam fundavit, et Petrus archiepiscopus Monasterium construxit; postea iste Angilbertus altare aureum fabricari fecit, et Otto primus et Lotharius imperator et comes de Campigono possessiones multas addiderunt," *Chron. Maius*, ed. Ceruti, p. 563. The above translation is after Porter, *Lombard Arch.*, II, p. 549.

109. Palustre and Montault, *Le trésor de Trèves*, Paris, 1886, pl. II.

110. F. Bock, *Die byzantinischen Zellenschmelze der Sammlung Dr. Alex. von Swenigorodskoi*, Aachen, 1896, p. 107. This author would also relate the enamels of the late tenth-century Staff of Peter in the Cathedral Treasury of Limburg to those of the Paliotto. On p. 67 of the above work he writes: "Auffallender Weise finden sich an der Kehrseite der oft benannten Altarmensa von St. Ambrosius acht eingekapselte Brustbilder in vielfarbigem Zellenschmelz vor, in einem Durchmesser von 2½ cm; dieselben zeigen in der Komposition und in den Emailfarben grosse Aehnlichkeit mit gleichartigen Halbbildern, die sich ebenfalls als *émaux de plique* an einem goldenen Reliquienbehälter des Erzbischofs Egbert erhalten haben. Dieser merkwürdige Reliquienbehälter, ehemals den Abschluss und die Bekrönung des Stabes des hl. Petrus bergend, mit seinem vielen Bildwerken, welche Brustbilder der Apostel in vielfarbigem Schmelz darstellen, desgleichen die acht figuralen Zellenschmelze in Rundmedaillons an der hintern Seite der Altarmensa von *San Ambrogio* in Mailand, lassen übereinstimmend eine Fleischfarbe in den Gesichtszügen erkennen, welche aus einer wenig durchsichtigen Vermischung von rothem und weissem Email besteht, im Gegensatz zu dem schönen, durchleuchtenden Inkarnat der Gesichtszüge an den zahlreichen figuralen Darstellungen der Staurothek Constantins VII., ebenfalls im Domschatz zu Limburg befindlich." For illustrations of the Limburg enamels see F. Witte, *Tausend Jahre deutscher Kunst am Rhein*, Berlin, 1932, II, 2. Kondakov, *Émaux byzantins*, p. 113, also noted a similarity between the enamels of the Staff of Peter and those of the Paliotto.

111. W. Burger, *Abendländische Schmelzarbeiten*, Berlin, 1930, p. 45. Cf. O. Falke and H. Frauberger, *op. cit.*, p. 6.

112. "Der Echternacher Evangelien-codex in Gotha," *Vereini-*

FIG. 40. Front of Paliotto, Annunciation

FIG. 41. Munich Staatsbibl.: Clm. 23338, Gospel Book, Pentecost, Fol. 104v.

FIG. 42. Braunschweig, Herzögliches Museum: Ivory Box, Detail, Annunciation

FIG. 43. Front of Paliotto, Resurrection

FIG. 44. Front of Paliotto, Ascension

FIG. 45. Front of Paliotto, Pentecost

FIG. 46. Front of Paliotto, Christ Called by Jairus

FIG. 47

FIG. 48

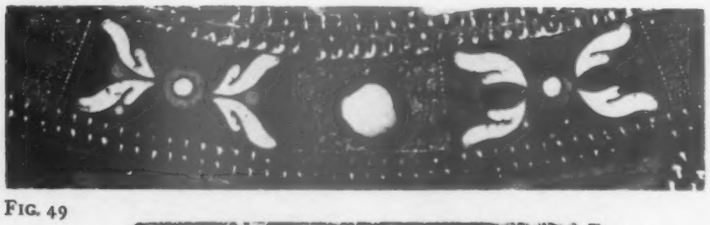

FIG. 49

FIG. 50

FIG. 51

FIG. 47. Trier, Cathedral Treasury, Reliquary of the Nail. FIG. 48. Paliotto, Enamels. FIG. 49. Paliotto, Enamels. FIG. 50. Paris, Louvre: Detail of Book Cover. FIG. 51. Gotha, Museum: Enamels, Cover of Echternach Codex

the bands which surround the medallions on the two doors on the back of the Paliotto (Figs. 2 and 49). Linked also with the name of Egbert of Trier is the Reliquary of the Foot of Saint Andrew in the Cathedral Treasury at Trier,[113] though in this case there is only a general stylistic similarity to the enamels of the Paliotto. Yet in view of the Ottonian character of the repoussé plaques of the front of the altar, the similarity of a number of the enamels, notably those of our second group, to known works of the late tenth century, suggests that some at least of the enamels should also be regarded as forming part of the Ottonian additions. It would be a mistake, of course, to argue that because the enamels of the first group are simpler than those of the second, they are therefore earlier. It is suggestive, however, that not only are there no close parallels for the first group of geometric enamels among Ottonian works, but their number is far greater than those of the second, presumably Ottonian, group, great enough to approximately fit the required space on the sides and back of the altar. May they not have originally adorned the Carolingian portion of the altar and have only later been combined with the Ottonian additions to give a greater semblance of unity? Since they are box enamels, they may, of course, be moved at will. The gold design characteristic of the third group of enamels (Fig. 48) is suggested by a similar treatment on a book cover now in the Louvre (Fig. 50). This cover is usually dated in the eleventh century and probably the enamels of the Paliotto which resemble it belong either to the Ottonian additions or to a subsequent restoration.

In view of the resemblance between the enamels of the Paliotto and those of works associated with Trier, it is possibly to that center or its related schools that we should look for the origin of the artist or artists responsible for the front of the Paliotto. This supposition gains added support from the fact that the eastern iconography of the scenes of the Miracle at Cana and the Annunciation was paralleled in each case on ivories which Goldschmidt has localized at Metz. Thus, by virtue of its geographical position, Trier, rather than Reichenau, might be the more likely center to manifest the mingling of the more restricted Ottonian tradition with the Byzantine influence which was apparently being felt at Metz from the end of the ninth century on. However that may be, the relationship between the various Ottonian centers seems to have been so close that at present the distinction between them must largely remain conjectural. What is clear, rather, is that when sufficient knowledge of the Ottonian schools has been gained to make it possible to write a complete artistic history of the period, such a history will contain as one of its monuments the Paliotto.

Taken as a whole, the foregoing conclusions regarding the Paliotto form a coherent picture, a little dim perhaps in places, but definite enough in its larger aspects. A short time before his death in 859 Angilbert II, Bishop of Milan, ordered made a silver altar for the church of Sant' Ambrogio. He chose to do the work an artist named Wolvinius, who possibly knew the work of Tours and whom Angilbert and the people of Milan held in such honor that they permitted him to put his own figure on the altar. Unfortunately, Angilbert seems to have died before the completion of the altar, for the dedicatory inscription labels him both "outstanding" and "famed," two epithets which would hardly have been used in the ninth century of a living prelate. It was perhaps the untimely death of the donor which prevented the completion of the front of the altar.[114] In any case, a completely new front was added, probably about the end of the tenth century, for the artists of the later portion employed a number of the new iconographic formulae which, to judge from extant monuments, appeared at Reichenau and probably elsewhere only about 980. Had there been a Carolingian front it would probably have been, like the back and sides, of silver, and it is reasonable that the Ottonian artists might have re-used the old material for the new scenes, but, as it was, the later additions were made in thin sheets of gold. Moreover, it was found necessary to add a number of enamels to both the front and the back of the altar, and a semblance of unity was given by mingling what appear to be the older Carolingian enamels with the newer Ottonian ones. The result of these changes and additions was a work of art which presents to the beholder an appearance of great beauty but to the archaeologist a series of paradoxes comprising the "archaeological difficulties" of which Kingsley Porter wrote.

gung von Freunden des kunsthistorischen Instituts, Bonn, 1930, pl. 1.

113. Falke and Frauberger, *op. cit.*, pls. 5 and 6.

114. Here also should be mentioned the possibility that originally the altar was intended to have only three decorated sides, the back being left plain. Thus what is now the back might have been in Carolingian times the front.

NOTE ON THE RENAISSANCE PANELS OF THE PALIOTTO

PAUL FOOTE NORTON, LIEUT. (j.g.), U.S.N.

The earliest reference to the date of the Renaissance panels, by Ferrario, assigns them to a seventeenth-century Baroque artist;[1] Cabrol[2] and Marignan[3] also place them without comment in the seventeenth century; Zimmermann[4] and Deckert[5] chose vaguely the Baroque period; Venturi[6] ventured the end of the sixteenth century without apparent reason. A *terminus ad quem* is established by the appearance of the three late panels in Puricelli's engraving of the Paliotto published in 1645.[7]

The three panels under consideration, like the rest of the front of the Paliotto, are in gold relief surrounded by borders with varying designs. These borders correspond sufficiently to the rest of the enamels on the front to warrant the inference that they belong to the original decoration and are not part of the restoration represented by the three panels they inclose.

The front of the altar is devoted to the life of Christ. The scenes proceed chronologically from left to right and from the bottom to the top in both sections in the following order: the Annunciation, Nativity, Presentation at the Temple, the Wedding at Cana, Christ and Jairus, and the Transfiguration; and on the right the scenes continue with Christ Driving the Money Changers from the Temple, the Healing of the Blind, the Crucifixion, and then, oddly, the Pentecost, Resurrection, and Ascension. The last three are the Renaissance panels. The order has evidently been broken after the Crucifixion scene, for to be correct chronologically they of course should read: Resurrection, Ascension, and Pentecost. The original panels may have had different scenes and certainly had another arrangement. When the replacements were made the original panels must have disappeared together with knowledge of their subjects, whereupon the present scenes were chosen, but without reference to the order of the whole altar. However, since these particular events were selected it is not surprising to find them arranged left to right and down instead of in the original order. When both the Ascension and the Pentecost are represented and one of these events is placed above the other, the Ascension regularly surmounts the other scene.

1. *Resurrection* (Fig. 43).

Christ, clothed in a voluminous loincloth, stands erect over the open tomb. At the right is the lid which has been cast side. A split banner flies in the wind strung by two strands from the intersecting arms of a staff-cross held in Christ's right hand, and around Him is a double glory of short incised lines. The pair of soldiers at Christ's feet may be interpreted as either aroused from sleep by the miraculous appearance of Christ or becoming "as dead men" after the words of Matthew (xxviii, 4). They are clad in pseudo-classic uniforms with buskin boots, short plaited kilt, large circular buckler, etc. At first glance the landscape appears to be rocky, but with further scrutiny most of the rocks dissolve in a vaporous background.

The iconography of the scene indicates the sixteenth century. A sarcophagus represents the Sepulchre in Romanesque Resurrections, and during the thirteenth century the artists frequently depicted Christ stepping out of the sarcophagus, but in the *Légende Dorée* it is stated that Christ came from a closed sepulchre. However this may be, it is apparent that the Resurrection on the Paliotto fits no one of these descriptions; Christ is present, but He neither steps from His tomb nor does He emerge from a closed tomb. After the fifteenth century the soldiers, instead of sleeping nearby, fall back, as here, in fright at the supernatural appearance of Christ.[8] Their costume is more helpful toward dating than their attitude, since fairly definite pronouncements may be made relative to the date and provenance of details of Italian armor. The soldier kneeling in the right hand corner of this panel wears a helmet which at first glance seems quite insignificant, but we have here in fact a specific head gear known as the combed morion or *chapel-de-fer*. Its origin is in Spain, according to Laking, where it was in use between 1460 and 1490.[9] The morion with the reinforced comb, as it here appears, was introduced into Italy about the middle of the sixteenth century, and remained in use until about 1600. The round buckler, made of painted wood or of wood with a decorative leather cover, held by the seated Roman soldier at the left belongs, according to C. O. von Kienbusch, to the third quarter of the sixteenth century. Further, the suit of armor worn by the fully clothed guard may be paralleled by such work as that of Bartolommeo Campi of Pesaro who in 1546 made the armor presented by the Duke of Urbino to the Emperor Charles V.[10] It should be noted that the pauldrons, espaliers with small pendent plates, worn by the soldier at the left, were only common between 1540 and 1570.

Evidence that the panels were replaced by a Milanese metal worker may be extracted from two objects in London, the first in the Victoria and Albert Museum and the second in the collection of Mr. D. M. Currie. The first is a wooden casket, with iron plaques, bearing the arms of France and the device of Charles IX, King of France (1560–1574), and catalogued as Milanese, about 1560.[11] The central plaque on one side has the figure of Minerva in repoussé; she is arrayed in armor closely resembling that of the soldiers at the tomb, and on the plaque to the left of the center is Mars whose flying folds of drapery are similar to the elaborate loincloth worn by Christ on our panel. The second object, a cabinet of wood with embossed plaques, is also catalogued as a Milanese work of the sixteenth century.[12] On one of its plaques there is the figure of a boy holding a burning heart, in a posture much resembling that of Christ. He wears a cloth which hangs from his hips, crosses the body, and then curls around the left arm in a manner similar to the Saviour's drapery.

The sixteenth century produced an innovation in the scene in that Christ is resurrected from a closed tomb. This change followed a decision of the Council of Trent in 1563 that the representation of Christ leaving an open tomb was in error. But in spite of this above proscription, there still were some nonconformists who used instead the old traditional scheme of Christ arising from the open tomb. One of Tintoretto's paintings in the Palace of the Doges in Venice, dated 1571, eight years after the Council of Trent, shows the open tomb type, and there are paintings by Carlo Maratta, Lazzaro Baldi, Rubens, and Le Brun in which the older tradition is preserved. The majority of representations postdating the Council are, however, of the type with the closed tomb, which makes reasonable the supposition that the Paliotto Resurrection was executed not too long after the decision of the Church.

1. G. Ferrario, *Monumenti . . . di Sant' Ambrogio*, Milan, 1824, p. 114.
2. Cabrol-Leclercq, *Dictionnaire d'archéologie chrétienne et de liturgie*, 1a, col. 3172.
3. A. Marignan, *Études sur l'histoire de l'art italien du XI–XIIe siècle*, Strasbourg, 1911, p. 5.
4. M. G. Zimmermann, *Oberitalische Plastik*, Leipzig, 1897, p. 186.
5. H. Deckert, *Marburger Jahrbuch für Kunstwissenschaft*, Marburg, 1924, pp. 268 ff.
6. A. Venturi, *Storia dell' arte italiana*, II, Milan, 1902, pp. 282 ff.
7. J. P. Puricelli, *Ambrosianae Mediolani Basilicae ac Monasterii hodie Cistertiensis Monumenta.*
8. E. Mâle, *L'Art religieux de la fin du moyen-âge*, Paris, 1925, p. 65.
9. G. F. Laking, *A Record of European Armour and Arms*, London, 1920, II, fig. 418.
10. Laking, *op. cit.*, III, fig. 1051.
11. *Exhibition of Chased and Embossed Steel and Iron of European Origin*, London, Burlington Fine Arts Club, 1900, pl. 25.
12. *Ibid.*, pl. 32.

2. *Ascension* (Fig. 44).

This panel is quite certainly the scene of the Ascension even though Marignan called it Christ Preaching to the Apostles. Christ stands high on a rocky mound, the Mount of Olives, fully and heavily draped with His arms stretched out over the twelve apostles, among whom Peter, Paul, and the beardless St. John are easily distinguishable. At the base of the mound upon which Christ stands are the imprints of His feet which appear only in the scene of the Ascension.

The imprint of Christ's feet on the Mount of Olives appears in the thirteenth century for the first time, and by the fourteenth century footprints are common. Kneeling figures of the apostles, as in our panel, are represented in the fourteenth and fifteenth centuries, which carries us further along in the evolution of the type.[13] A sixteenth-century Milanese ciborium confirms the evidence, already gathered in the discussion of the Resurrection panel, for a date in this century. One may note in this comparison the similar tilted bearded heads, and arms variously and expressively poised.[14] The caryatid figures on the front of Leone Leoni's house in Milan exhibit arms crossed or otherwise posed in similar fashion; these may even have inspired for instance the seated figure at Christ's left on the Paliotto panel. Leone Leoni was working in Milan in the latter half of the sixteenth century.

3. *Pentecost* (Fig. 45).

The Virgin is seated in the center on a raised platform with the twelve apostles grouped about her in various postures. She wears a mantle over her head, and heavy drapery over her body, as do the apostles, and sits frontally with her hands clasped in prayer. The dove of the Holy Ghost descends from the heavens, sending out flames of spirit to the whole group.

The specifically Renaissance motif in this Pentecost is the use of flames instead of the Romanesque and early Gothic streamers to represent the descent of the Spirit, a revival of earlier iconography denoting the fifteenth century or later.[15]

Again the Milanese ciborium affords a good comparison, since the Pentecost figures in one of its large reliefs. The Virgin is seated on a platform, as in our panel, with the apostles standing behind her; the holy Dove descends sending out flames of the Spirit; the bearded heads of the apostles twisting upwards and their gestures of surprise and prayer are noticeable features on the Paliotto panel. It is impossible to overlook the very evident *contrapposto* of several of the apostles, a common mannerism of the sixteenth century, after Michelangelo. Comparison may be made again between the expressive gestures of the caryatid figures on Leoni's house, and the arm postures of the apostles in the Pentecost.

No mediaeval survival remains in these three panels of the Cinquecento; the artist who replaced with them the mediaeval panels could not have had the originals before him when he drew his designs. The three early panels were either stolen or completely destroyed. An article by Tarchiani furnishes the historical answer to this question, showing that the panels *were* stolen ("about 1590" is Tarchiani's phrase) by an untrustworthy canon of the church. The canon was later executed in Rome for further crimes, but nothing more has been heard of the panels.[16]

The evidence here gathered was assembled before acquaintance with Tarchiani's article, and its rough confirmation of his historical date is comforting assurance of the validity of iconographic and stylistic clues. The study of the armor in the Resurrection scene, and also the comparisons with the casket, cabinet, and ciborium in London indicate a date in the sixteenth century no earlier than 1570 and an origin in Milan. After the decree of the Council of Trent in 1563 an open sarcophagus in the Resurrection was contrary to ecclesiastical rule, but some artists still followed the older type, and Tarchiani's date of "about" 1590 for the theft merely shows that the panels retain a retarded iconography. Tarchiani further records that in 1598 the canons of S. Ambrogio needed more funds to complete the repairs of the altar, and asked Queen Margarita of Spain to assist them, but this request may refer only to a final embellishment with jewels. A pastoral visit of the archbishop Carlo Borromeo occurred in 1603, and the altar may be supposed to have been completed in its entirety by that time. A reasonable date for the three panels can be placed in the last quarter of the sixteenth century, and probably, in view of Tarchiani's evidence, its last decade.

13. E. T. DeWald, "The Iconography of the Ascension," *American Journal of Archaeology*, II ser., XIX, 1915, p. 317.

14. *Exhibition of . . . Steel and Iron . . .*, Burlington Fine Arts Club, pl. 34.

15. Mâle, *op. cit.*, p. 66.

16. N. Tarchiani, "L'altare d'oro di Sant' Ambrogio di Milano," *Dedalo*, I, 1921, p. 18.

NOTES

MICHELANGELO'S MADRIGAL, *GLI SGUARDI CHE TU STRAZII*

CREIGHTON E. GILBERT

An article by Charles de Tolnay in the September, 1940, issue of the ART BULLETIN[1] opened with a discussion of a manuscript poem of Michelangelo's in the Huntington Library. Recent study of Michelangelo's poetry has confirmed my original tendency to question the results which this discussion reached. I quote here the entire text of the section of de Tolnay's article dealing with this manuscript, except for three footnotes of minor importance:

"In the Huntington Library at San Marino, California, is preserved a single folio which has two pencil sketches and the draft of a poem, all by the hand of Michelangelo. This document has hitherto escaped notice by art historians. The poem occupies the center of the page and is in the characteristic script of Michelangelo. The following transcription, with word-separations, accents, and punctuation in accordance with modern usage, has been made by Dr. Paul Oskar Kristeller of Columbia University, who has also been kind enough to provide the English translation [lines 2a, 6a, and 8a are Michelangelo's corrections in the margin of his manuscript]:

1 né debbo ancor — tanto dispiace a Dio
2 il far me d'altri, se mi fece mio.
2a né furto è già quel che del tuo non doni
3 non è già furto se'l tuo non mi doni,
4 ma poi che'l vulgo sati
5 e' bruti e me ne spogli,
6 a morte sol per ben amar mi sproni.
6a micidio è ben c'a morte ognior mi sproni.
7 o Dio, perchè perdoni?
8 tuo somma cortesia
8a ma se'l vulgo ne sati
9 sie da costei qui tolta
10 a chi gusta e desia,
11 o data a gente stolta
12 de falla un'altra volta
13 pietosa dentro e si bructa di fori
14 c'a me dispiaccia e di me s'innamori.

This may be literally translated:

1 Nor must I any longer . . . so displeasing is it to God
2 that I make myself belong to others, since He made me mine.
2a (nor is theft that which you do not give of yours)
3 It is not actually theft if you do not give me what is yours,
4 but since you satiate the people
5 and the beasts, and deprive me of it,
6 you drive me to death only because I love well.
6a (it is really murder since you drive me always to death.)
7 O God, why dost Thou forgive this?
8 Thy supreme grace
8a (but if you satiate the people with it)
9 may it be taken away from her
10 (and given) to one who appreciates and desires it,
11 or given to stupid people,
12 to make her another time
13 pious within and so ugly without
14 that she may displease me and may fall in love with me.

This poem is a project for a sonnet which Michelangelo seems never to have finished. It does not exist among Michelangelo's poems as published in the critical edition of Karl Frey. We find in this autograph an example of the master's typical poetic method. First he jots down verses which correspond in rhyme, and which possess the desired rhythm even though they have no relationship in thought. The unity of idea is achieved only after the poem has been worked over several times. This method is the direct opposite of the one usually used by poets of his time, who based their poetry first of all on an intellectual concept. Michelangelo uses the poetic rhythm as his foundation, for to him this expresses the surge of feeling which remains his poem's primary content, even after he has arrived at unity of thought. In this consists, perhaps, the secret of the force of his poetry, which is unique in sixteenth-century Italian literature, and also its resemblance to Dante.

"While the actual sonnet, of which the Huntington Library folio bears the first draft, is unknown, we can recognize similar uses of words in other poems by Michelangelo which date between 1530 and 1545. The character of the script indicates the same period."

The root errors are found in the first two sentences following the translation. This is not a single poem, but two partial poems; it is not a sonnet, but parts of madrigals; the major fragment did receive an extant finished form, and this form was published by Frey in the basic edition of Michelangelo's poems.[2] The first two lines are separated from the rest in their position on the manuscript page and in subject matter. The word "ancor" in line 1 suggests that a previous assertion, parallel to the one being introduced, is present in Michelangelo's mind, and hence that this is not the beginning of a poem. I shall suggest that it is the end of one. Such a doubling of reasons given for an action is characteristic of Michelangelo's poetic structure.

The rest of the text comprises twelve lines of a madrigal. The sonnet and madrigal are Michelangelo's two most usual forms, and were employed by him about equally; but the sonnets are so much better known that one is likely to meet the phrase "Michelangelo's sonnets" where all of his poems are meant. The sonnets are normal, being always rhymed *abba abba* in the quatrains and usually *cde cde* in the tercets; the lines of course are all eleven syllables long. This poem has the obvious madrigal characters of irregular rhyme-scheme and line-length, and especially the emphatically conclusive couplet at the end.[3]

1. "Michelangelo Studies," XXII, 1940, pp. 127–128; the manuscript page is reproduced in fig. 3, opposite p. 130.

2. *Die Dichtungen des Michelagniolo Buonarroti*, ed. K. Frey, Berlin, 1897, No. CIX-63, p. 169. It had also appeared in the most important previous edition, *Le Rime di Michelangelo Buonarroti*, ed. C. Guasti, Florence, 1863, pp. 69–70.

3. This habitual form and the *ancor* suggest that the two lines at the top of the Huntington sheet are the two last lines of a madrigal. They apparently, unlike the other twelve, are a true addition to Michelangelo's *oeuvre*, though many resemblances and versions lie hidden in Frey's notes. Among the very few fragmentary madrigals known to us there is none with which these lines would fit both in form and theme.

That Michelangelo finished this poem is shown by its text in Frey's edition. I quote here first the main fragment of the Huntington text as it would appear in a fair copy, with the autograph marginal corrections substituted for the earlier forms which they replace:[4]

2a . . . nè furto è già quel che del tuo non doni.
8a Ma se'l vulgo ne sati
5 e' bruti, e me ne spogli,
6a micidio è ben c'a morte ognior mi sproni.
7 o Dio, perchè perdoni
8 tuo somma cortesia
9 sie da costei qui tolta
10 a chi gusta e desia,
11 o data a gente stolta.
12 de falla un' altra volta
13 pietosa dentro e si bructa di fori
14 c'a me dispiaccia e di me s'innamori.

Here is the Frey text:

Gli sguardi, che tu strazii,
A me tutti gli togli;
Nè furto è già quel che del tuo non doni.
Ma se'l vulgo ne satii
E bruti et me ne spogli,
Omicidio è, ch'a morte ognior mi sproni.
Amor, perchè perdoni,
Tuo somma cortesia
Sie di beltà qui tolta
A chi gusta et desia
Et data a gente stolta?
Dhe, falla un'altra volta
Pietosa drento et si brutta di fori,
Ch'a me dispiaccia et di me s'innamori.

Space need not be wasted in demonstrating an obvious identity.

This madrigal is, indeed, one of those which Michelangelo worked on most; Guasti and Frey, who were ignorant of the Huntington manuscript, knew three autographs and two variant copies by Luigi del Riccio.[5] No two of these texts are exactly alike, but they form two groups so different that Guasti thought it necessary to print examples of both as variant texts in his edition. Within these groups, Autograph 1 is a draft of which Autograph 2 is a fair copy with slight changes, and Autograph 3 is a draft of which the Riccio copies, the basis of Frey's text, are fair copies with slight changes. The Huntington manuscript clearly belongs with the latter group. The two versions coincide in the first two lines; the third lines differ so greatly that they introduce contradictory conceits.[6] Thus the third line of the version which Frey rightly considered the earlier[7] (Autographs 1 and 2), runs:

E furto è ben quel che del tuo non doni

which obviously contradicts the sense of line 3 in the later version found in Autograph 3, the Riccio copies, the Huntington manuscript and Frey's text. This fact explains the omission of the first two lines in the Huntington manuscript and shows its place in the sequence. Of the later version it is the earliest text extant, and probably the earliest made. Since the first two lines were to be unchanged, Michelangelo did not bother to set them down, but went on at once to his new thought. That the Huntington manuscript is the earliest text of the second version is confirmed by the evidence of the marginal corrections in the manuscript, which are incorporated in the text in Autograph 3 and the Riccio copies. Thus line 3 of the Huntington manuscript runs:

non è già furto se'l tuo non mi doni,

but this is corrected in the margin (line 2a) to:

nè furto è già quel che del tuo non doni

which is the precise form of the other three texts of this group. Line 6, from being:

a morte sol per ben amar mi sproni

becomes in the margin (line 6a):

micidio è ben c'a morte ognior mi sproni

which is more than a mere shift of emphasis. This form is retained in Autograph 3, while in the later Riccio copies, as the Frey text shows, the word "ben" is omitted. Line 4 undergoes in the margin (line 8a) a shift of particles like that of line 3. Another marginal change occurs slightly later: line 9 of the Huntington text runs:

sie da costei qui tolta

which reappears in Autograph 3, only to be altered in *its* margin to:

sie di beltà qui tolta

a form which is retained in the Riccio copies. Only one such point would seem to argue against this view of the sequence of texts. Line 10 is identical in the Huntington and Riccio-Frey texts compared above, but in the presumably intermediate Autograph 3 it appears as:

a chi brama e desia.

This point, however, hardly weighs against the four other pieces of evidence, and must merely indicate vacillation on Michelangelo's part. The characteristic change would be from *brama* to *gusta*, so that Frey was right in preferring the Riccio copies as later and more definitive than Autograph 3, unlike them at this point only.[8] *Brama* adds little to *desia*, while *gusta* introduces a further concept. Michelangelo's tendency is always to

4. By this process de Tolnay's line 2a is substituted for his 3, line 8a for line 4, and line 6a for line 6.

5. Guasti, *loc. cit.*; Frey, *op. cit.*, pp. 437–438.

6. While the emphatic statements of the two third lines are contradictory, the whole theme and intention of the two versions is exactly the same. This is a valuable index to the habits of Michelangelo's mind in writing poems. In the context of a general situation two contradictory statements can, in terms of the logic of poetic paradox, result in the same truth. Returning to his old poem with its strong assertion in line 3, Michelangelo reacted by questioning the truth of this assertion, and found that one opposed could lead to the same conclusion. Related evidence will be discussed below.

7. Frey does not explain the basis for his arrangement of texts, which presumably depends on criteria similar to those used in this article to determine the chronological position of the Huntington text. Such criteria would show the order of the texts within each group, but not the priority of one group over the other; to determine this Frey apparently based himself on handwriting and similar evidence. The evidence of the Huntington text, if my interpretation of it is accepted, confirms him fully on the relation of the two groups. He believes, further, that Autograph 1 was written some time before 1546, the year when an edition of the poems was projected, while its fair copy, Autograph 2, is of that year, along with all the manuscripts of the second group. One may easily imagine that Michelangelo, copying out his old poem in 1546, felt critical of it and made revisions; perhaps Frey implies this. The following discussion will concern the texts of the second group only. (Guasti prints a text of the second group as a "prima lezione" and one of the earlier as a "seconda lezione," but it is not clear that for him these terms have chronological significance.)

8. Without the Huntington text, *gusta* would be known only from the Riccio copies, while *brama* would have autograph authority. The appearance of *gusta* in the Huntington autograph lends support to Frey's belief that the Riccio copies represent Michelangelo's own revisions written down by Riccio.

make the meanings of his poems more complex and intense by substituting words which add new suggestions, systematically related to the progress of ideas in the poem, for those that are repetitious or simply decorative. Another good example of this is the revision of the madrigal "Non sempre a tutti è si pregiato e caro."[9]

All the word variants have now been discussed except that in line 7, where "O Dio" becomes "Amor," an important shift which happens not to appear in a margin, and the curious variation of *o* and *et* in line 11, which will be discussed below.

My major disagreement, however, is with de Tolnay's critical evaluation of the poem, the key to which is his reference to "verses which . . . have no relationship in thought."

The problem may best be approached by an analysis of what, precisely, the sense of this poem is. His lady, says Michelangelo, will not so much as look at him. He now has no redress against her at law, since she is merely keeping what is hers; but perhaps he will in the future, since her behavior, if long continued, will cause his death and be a murder. In the addition of the concept "murder" in his marginal revision, Michelangelo introduces a legal metaphor by the parallelism with the word theft above. Thus a second layer of thought is applied, thickening the sense over and above the conventional phrase "merely for loving well" which the murder has replaced.[10]

In this dire state he appeals to the God of Love. Why does the God allow this abuse of his gifts, which are now snatched away from those like Michelangelo who desire and appreciate them, and given instead, by the beauty (another intensification of the idea over *costei* — the woman) who has them in her control, to stupid people?[11] To remedy this, let Love recreate the lady with an ugly body, so that Michelangelo will have the satisfaction of not caring for her, and a merciful temperament, so that she will fall in love with him. The ugliness of the lady is associated with her present beauty which Michelangelo refers to when he revises line 9, thus making the progression more explicit and systematic. The last two lines are as remarkable a summing up of the previous rhetoric as often appears in Elizabethan poets or in Donne, with whom Michelangelo has many similarities.[12] They tie the knot of what has gone before and introduce their own wry and laughing paradox, giving a total effect of effortless finish to the tortuous involutions of the madrigal.

That the verses of a poem with these clever structural aspects should be said to have "no relationship in thought" seems strange, and if the remark is held to apply to Michelangelo's poems generally, it seems even less appropriate to a poet whose best known productions are Neo-Platonic arguments like "Non ha l'ottimo artista alcun concetto" and passionate hymns of Christian repentance like "Giunto è già'l corso della vita mia."[13] The method of the latter especially and of other sonnets of its date is indeed "the direct opposite of the one usually used by poets of his time" but precisely because the height of their expression shares the *terribiltà* and pathos of the sculpture contemporary with them, such as the Florence *Pietà*, in contrast with the fawning *vers de société*, facile satire, or bloodless epics of sixteenth-century poetasters.[14]

If one allows for the deficiencies of the Huntington text, the difficulties of interpretation are understandable. Yet de Tolnay did not accept these as the inevitable result of fragmentary evidence, but raised them to principles of style. When the poem was found, properly, not to make much sense, he did not assume that the text was defective, but that Michelangelo wrote rhymed non-sense. This view however has no basis in the text itself. That it is based on the failure to grasp the thought which the poem does contain is shown by the translation. This is quite accurate for the first six lines, though "ancor" in line 1 probably means "furthermore" rather than "any longer," and the "che" of line 6a is "that," not "since." But the latter part gave trouble. A question mark had to be inserted in line 7, which turns this line into a sentence by itself, making *perdoni* intransitive in the Italian and giving it an awkward "understood" object in English (an unspecified "this"); makes *sie* of line 9 into a main-clause verb, a singularly unemphatic hortatory subjunctive; and, least justifiably of all, makes it necessary to "understand" *data* of line 11 as preceding and explaining line 10. This process gives us:

> "O God, why do you forgive [this]? Let your highest favor be taken away from this woman and given to whoever may appreciate and want it, or to stupid people!"

A translation conforming to the grammatical and semantic situation runs:

> "O God, why do you forgive your highest favor's being taken away by this woman from those who appreciate and want it and given to stupid people?"

In the first version the choice of recipients for the favor seems entirely random, while in the second it is motivated.

The appearance of the particle *o* in line 11, it must be agreed, has hampered the understanding of the Huntington text. Though *et* appears in the other versions, it seems from the photograph of the manuscript page that *o* was actually used here. There is a strong presumption that Michelangelo regarded *o* and *et* as interchangeable as far as the meaning of the phrase went. It may be seen that substitution of *or* for *and* (just before *given*) would make the first of the two paraphrases above even more arbitrary, while in the second it merely induces the slight divergence in sense that might be expected.

Finally, line 12 seems to be translated as though the imperative *falla* had been taken as the infinitive *farla* and no new sentence inferred: "or given to stupid people, to make her another time pious and ugly" (what this reading does with *de* is unexplained). This translation implies that the giving of the courtesy to the stupid people was intended to effect the re-creation of the lady as pious (sic) and ugly and thus only serves to heighten the effect of an irrational continuity of meaningless events. Keeping as much of the body of this rendering as pos-

9. Frey, *op. cit.*, CIX-51–52.

10. Professor Walter Friedlaender suggests that the change from *furto* to *omicidio* indicates a change from a lower to a higher appellate court, as it were, over which Amore-Dio presides, while I see rather an exact parallelism of crimes differentiated by the lady's liability or non-liability to conviction. In either case the precise working out of the metaphoric conceit is characteristic.

11. In his paraphrase of this section, Guasti writes: "O Amore, perchè permetti che la tua somma cortesia di beltà (cioè, una larga copia di beltà) sia tolta a chi la desidera e può gustarne, per darla a gente che non ha sentimento?" (*loc. cit.*). I think the position that *beltà* does not stand for the lady would today be held indefensible on at least two grounds: 1) *beltà* was inserted into the place of *costei* without any change of the surrounding lines; hence it surely represents the same concept; 2) Guasti's view requires a distortion of *tuo somma cortesia*, which surely means "your highest favor." Cf. the madrigal "Perchè è troppo molesta" in which the same phrase forms line 5 of one version, and is used as a synonym of *grazia*. Another version makes it *vostr'alta cortesia*, and *grazia* becomes *mercè*. These terms are also opposed to *furto*, which suggests a further layer of references in the *Gli sguardi* madrigal.

12. The interesting essay of Mario Praz, "Donne and the Poetry of his Time," in *A Garland for John Donne*, ed. T. Spencer, Cambridge (Mass.), 1931, deals largely with Michelangelo and stresses this suggestive if quite unhistorical relation. It incidentally gives many instances of Michelangelo's poetry making sense.

13. Frey, *op. cit.*, LXXXIII and CXLVII.

14. Far from being original, this is the view generally held. Among recent works the general observations of A. Blunt, *Artistic Theory in Italy*, London, 1940, and N. Robb, *Neoplatonism of the Italian Renaissance*, London, 1935, may be cited, as well as those of Praz. The very title of J. E. Taylor's *Michelangelo as a Philosophic Poet*, London, 1840, summarizes a widely held attitude.

sible, one would revise: "or to stupid people. O make her another time kind and ugly."

We are confronted here once again with the mere difficulty of understanding Michelangelo's poems, which many writers have attested. I hope that, besides reestablishing the genuine position of one madrigal, this note may help to stimulate the much needed critical enquiry into Michelangelo's poetic work.

After these remarks on minutiae, the reader may feel that he lacks a grasp of the poem in its most general aspects of feeling and tone. Since this poem has never been translated, so far as I know, I may in conclusion submit the following tentative version:[15]

The looks you cast aside, —
You rob me of them all;
Yet it's not stealing not to give your own.
But if I'm stripped to feed
Rabble and animal,
It kills that you keep spurring my dying on.

Love, how can you condone
When your most precious favor
A beauty takes from them
Who wish and know its savor,
And gives to foolish men?
O make her over again
So kind within and ugly outwardly
That she'll displease and fall in love with me.

[NEW YORK UNIVERSITY]

AN AUSTRIAN TRIPTYCH

GRETE RING

Over a year ago a picture was sold at auction in New York which has for a long time persistently refused to fit into any definite art-historical milieu. It is a small altarpiece, with the Lamentation over Christ in the center, St. Catherine on the right inner wing, St. Barbara on the left (Fig. 1), and the Annunciation on the outside wings (Fig. 2).[1] The picture formerly belonged to the Richard von Kaufmann Collection. It was exhibited at the Exhibition of French Primitives in Paris in 1904, and described as follows: "École [française] de l'Est vers 1480 . . . On penserait à un tableau exécuté en Alsace ou en Souabe . . . la madone est d'inspiration française . . . le verso porte une annonciation dans le goût français."[2] At the von Kaufmann Sale in Berlin in 1917 the picture was still half-heartedly catalogued by M. J. Friedländer as by a French Master about 1500 "owing to its not very distinct likeness to a Pietà in the Louvre ascribed, without certainty, to the French school. Perhaps school of the Lower Rhine."[3]

I came across the picture again when I tried to collect the scarce and scattered examples of primitive French easel paintings which are to be found outside France. Special knowledge of French primitives has, alas, hardly increased since the heroic days of the pioneer scholars and enthusiasts who arranged the Paris exhibition of 1904, but knowledge about other schools of painting fortunately has grown. The picture in question can therefore now be safely assigned to a painter whose work has been established by diligent recent research — the Austrian Master of the Krainburg Altar, named after his principal work which is now in the Vienna Gallery but was formerly in the Parish Church of the small town of Krainburg south of the Karawank Mountains. This work, which dates about 1520, contains four paintings on two wings: the Agony in the Garden, the Resurrection of Christ and two scenes from the legend of the central Austrian Saints Cantius, Cantianus and Cantianilla.[4] If one compares the New York picture with the Vienna panels illustrating the legend of the local Saints, the similarity of the female types (we may compare especially Sts. Catherine and Cantianilla), the relation of the principal foreground scenes to the landscape, the ornamentation of the painted architectural framework, the hands with their thin, clawlike fingers, all give convincing evidence that one artist painted both pictures. The New York Lamentation, of course, is derived from such a painting of Rogier van der Weyden's as the Pietà in the Earl of Powis' Collection, just as the Resurrection on one of the Vienna wings adopts a Dirk Bouts composition. The Jerusalem in the background of the Lamentation, as Mr. Julius S. Held kindly informs me, is taken from Reuwich's woodcut in Breydenbach's *Peregrinationes*, and the same model was used in the Vienna Resurrection.

There exists another altarpiece which has been ascribed to the Krainburg Master, although the quality seems rather poor in comparison with the Vienna wings; it is certainly a good deal earlier, about 1490. By an interesting coincidence, two panels of this ensemble have gone to America: one of them, the Massacre of the Innocents, was recently sold at auction;[5] the second, showing the Body of St. Florian on a Cart Drawn by Oxen and, like the first, formerly in the Wickenburg Collection, Gleichenburg, is now in the Chicago Art Institute with the Worcester Collection.[6] The remaining panels of the altarpiece, as far as they are preserved, are in the Museum Joanneum, Graz. These are: the Birth of Christ, the Adoration of the Magi, the Martyrdom of St. Florian, and the Body of St. Florian Guarded by an Eagle.

The New York triptych is not the only work of art the supposedly French origin of which has changed to Austrian, or vice versa. I should like to call to mind the famous Holy Trinity of the London National Gallery acquired twenty years ago as Franco-Burgundian but now recognized as the work of an Austrian painter (close to the Master of St. Lambrecht); and the puzzle still presented by the lovely wings of the Vienna Gallery,[7] formerly at the Convent of Heiligenkreuz which has given a name to yet another great early painter. This Master of Heiligenkreuz, one of whose rare works, the Death of the Virgin, is also in America (Cleveland Museum), has had the curious fate of being rejected as Austrian by most Austrian scholars, and handed over to the French School, whereas French scholars are unwilling to admit him to the anxiously guarded

15. The reader will make allowances for the necessities of English usage and metrics. In a forthcoming selection of Michelangelo's poems with translations I hope to discuss this system of half-rhymes. I wish to express my indebtedness to Harry Duncan.

1. On panel, the Lamentation 46:35.5 cm.; the wings each 51:16 cm.; now in the collection of Clarence Y. Palitz, New York.

2. *Exposition des primitifs français au Palais du Louvre . . . et à la Bibliothèque Nationale*, Catalogue rédigé par Henri Bouchot, Léopold Delisle . . ., Paris, 1904, no. 96.

3. *Die Sammlung Richard von Kaufmann, Berlin*, Berlin, Cassirer and Helbing, 1917, II, no. 122.

4. Cf. Otto Benesch, "Der Meister des Krainburger Altars," *Wiener Jahrbuch für Kunstgeschichte*, VII, 1930, pp. 120 ff.; VIII, 1932, pp. 17 ff.

5. *Paintings of Various Schools . . . Property of F. Schnittjer and Son*, Public Auction Sale, Part II (Feb. 10–11, 1943), New York, Parke-Bernet Galleries, p. 65, no. 326.

6. D. C. Rich, *Catalogue of the Charles H. and Mary F. S. Worcester Collection of Paintings, Sculpture and Drawings*, Chicago, 1938, no. 30; C. L. Kuhn, *Catalogue of German Paintings of the Middle Ages and Renaissance in America*, Cambridge, Mass., 1936, no. 33. Both paintings, for some years, had been in the Roerich Museum, New York.

7. They represent the Annunciation and the Mystical Marriage of St. Catherine.

sanctuary of primitive French painting. I tried resolutely myself to ascribe his work to a French "maître enlumineur," but my thesis, I am sorry to confess, met with unanimous disapproval.[8]

I am insisting on the attribution of the New York triptych to the Master of the Krainburg Altar not solely because of its similarity to the Vienna picture. For there is a quaint affinity between this painter and two other equally enigmatic artists of the period who have received attention recently: the Master of the Virgo inter Virgines[9] and the Master of St. Bartholomew. It is particularly astonishing that just these three artists, each of whom seems so utterly strange and singular, do not evidently stand quite alone, but have some of their most individual peculiarities in common. The Virgo Master was active in Delft; the Bartholomew Master, who was also probably Dutch and came from Utrecht,[10] worked in Cologne; the Krainburg Master, as we have seen, worked in southeast Austria. In the present state of research, it is hardly possible to decide whether there exists any actual connection between these painters, and what direction, if any, the influence may have taken, or whether we have to deal with the more universal phenomenon of some underlying spirit of the age. The question of the "wandering artist" also arises once more. Benesch[11] has already suggested a solution by declaring the Krainburg Master a wanderer who passed some of his apprentice years in the region of the Lower Rhine. There he possibly got in touch with the Master of St. Bartholomew, who, on his part, introduced him to the Master of the Virgo inter Virgines. At that point the matter rests for the time being. I hope that the addition of the New York triptych to the Austrian master's work will help to bring this problem nearer to its solution.

8. Grete Ring, "Primitifs français," *Gazette des Beaux-Arts*, LXXX, 1938, pp. 149 ff.

9. Cf. his versions of the Lamentation in the Metropolitan Museum, the Liverpool Gallery, the Prado and the Leroy Collection in Paris. One still closer to the New York Lamentation by the Krainburg Master turned up several years ago in the collection of Lady Hughes Stanton, Scarsdale Lodge, England. It measures 20½ by 20 inches and has never been published.

10. Cf. M. J. Friedländer, "Neues über den Meister des Bartholomäus-Altars," *Wallraf-Richartz Jahrbuch*, III/IV, 1926–27, pp. 174 ff.; Grete Ring, "Die Gruppe der Heiligen Agnes," *Oud-Holland*, LVI, 1939, pp. 26 ff.

11. *Loc. cit.*

RICHMOND, SURREY

FIG. 1. New York, Collection Clarence Y. Palitz: Master of the Krainburg Altar, The Lamentation, St. Barbara and St. Catherine

FIG. 2. New York, Collection Clarence Y. Palitz: Master of the Krainburg Altar, The Annunciation

BOOK REVIEWS

SUMNER MCKNIGHT CROSBY, *The Abbey of St.-Denis, 475–1122*, Vol. I (Yale Historical Publications, History of Art Series, III), New Haven, Yale University Press, 1942. Pp. xiv + 211; 92 figs. $7.00.

This volume by Professor Crosby of Yale University, devoted to the history of the Abbey Church of St.-Denis and the reconstruction of the important eighth-century Carolingian church of which so little has survived the subsequent rebuildings, has the rather uncommon distinction of being both scholarly and interesting. No one who reads the book, and thereby comes to know better how much French history and art were created and interred at St.-Denis, can fail to realize that it required a fine courage first to dig into the complicated foundations of the structure and then to publish the results when it had become evident that the war had stopped for years to come any possibility of continuing the fruitful, although limited, excavations. In the final results it is not so much the digging as the clear thinking and excellent presentation which have made the book a distinguished contribution to mediaeval archaeology and American scholarship — something in days like these of which we should be proud. After paying this very sincere tribute to the author's courage and accomplishment, it is perhaps permissible to wonder whether it was modesty, or caution, which led him to conceal in two inconspicuous notes the important information that he is now at work on the second volume, dealing with Suger's twelfth-century church, and that he hopes to write a third volume on the Rayonnant architecture and other arts of St.-Denis. Difficult as it must be for Professor Crosby to complete his studies under present conditions, his first volume makes it evident why it is important for him to finish the work as soon as it is physically possible.

"The background of political, social and intellectual conditions of the period that produced the works of art" is set not only by an analysis of the different kinds of historical documents upon which the archaeologist must rely for the reconstruction of a monument whose few physical remains are buried under later rebuildings, but also by three excellent chapters, The Legend of Saint Denis, The Cult of Saint Denis, and The Early Religious Community. By means of his very discriminating sense of historical probability and documentary evidence the author constructs a clear picture of the origins of the cult from the third century, when Gregory of Tours says the saint lived and was martyred near Paris, traces the growth of the cult during the fifth and sixth centuries, and describes those conditions which by the time of Dagobert I had started to associate the fortunes of the Abbey of St.-Denis with the kings of France. These chapters are in no way a perfunctory historical introduction: the chapter on the cult of the saint is a most illuminating contribution to an understanding of early mediaeval religious life in Gaul where there was "a curious contrast between static self-sufficient communities and a population that was constantly on the road" as it sought diversion, health and salvation from its pilgrimages to the relics of a revered saint. In discussing the two kinds of early churches built for liturgical assemblies he says (p. 54) that those without relics were called *ecclesiae* and those with relics were called *basilicae*. Without any intention of involving either the reviewer, or the author, in a typical mediaeval controversy of usage and the question of when a consecrated church did or did not have relics, it is evident that Professor Crosby was only applying this distinction to Gaul at the time when the foundation of St.-Denis was being established, and did not intend to imply that the terms *ecclesia* and *basilica* were always used by the Church with such a simple difference of meaning; in fact it might be noted that in 833 Hilduin's chapel for relics was described as an *ecclesiam* (p. 168, note 12).

The "First Building of St.-Denis," to which he devotes a chapter, has had to be reconstructed entirely from acceptable documentary evidence, for it is impossible to be sure even where it was located. He dates it late in the fifth century. Presumably it was a three-aisled basilica, constructed of rubble walls and covered with a wooden roof. An altar was attached to the front of the saint's tomb. It is significant that "none of the early texts implies the presence of a crypt under the choir." Unfortunately in the first line of the last paragraph on page 73 there appears to be an error of proof reading whereby the church is dated "toward the end of the fourth century." Levillain suggested that some of the capitals in the Cluny Museum might have belonged to this early Merovingian church, but Professor Crosby in Chapter VII carefully studies these capitals and arrives at the conclusion that their actual provenance is too uncertain to assign them to either the fifth century Merovingian or eighth century Carolingian church.

The reconstruction of Abbot Fulrad's church, dedicated in 775, is based upon a restudy of Viollet-le-Duc, a reinterpretation of the documents, and the results of the author's excavations. What makes the proposed restoration of the church so convincing is the handling of the evidence in relation both to what is known about the church and to the prevailing forms of Carolingian construction. Starting with the accepted fact that Fulrad's church was a three-aisled basilica with a long transept, he shows how Viollet-le-Duc misinterpreted the foundations of this church and so made the transept too wide. As a result of his own excavations the author was able to locate one corner of the nave and then by an ingenious interpretation of Suger's accounts of the twelfth-century rebuilding he has succeeded in working out the proportions, not only of the ground plan, but even of the non-existent superstructure, so that the proportions conform to those of other Carolingian structures and fit the Carolingian unit of measurement.

The only part of Fulrad's church, as he recreates it, to which exception can be taken, is the apse. This he believes was polygonal on the exterior and semicircular on the interior. Although Professor Crosby is not categorical about the polygonal exterior of the apse, Fulrad's church was too important a monument in Carolingian architecture for us to admit that it was the exception to the rule unless the evidence for its polygonal apse is conclusive. After examining the actual foundations of the Carolingian apse, as it is today partially preserved in the present crypt, Professor Crosby asserts with an authority which cannot be questioned that the angular corners are part of the original Carolingian masonry and not later additions as Viollet-le-Duc claimed. Therefore he holds, without any unjustified dogmatism, "that the evidence of the existing masonry should be respected," since it makes a reasonably regular polygon. Even though we continue to respect the evidence of the masonry and his study of it, it does not seem to follow that the actual apse of Fulrad's church had to be polygonal. There is the first possibility that this not too regular polygon of masonry was only a more solid way of roughly shaping the foundations so that the superstructure of a semicircular apse could be easily fitted within its angular corners. The other possibility (somewhat

similar to one envisaged by Dr. Panofsky and mentioned to the writer in conversation) is that the church, which was partly constructed during the reign of Pepin the Short, might have had a polygonal apse, as was not uncommon during the Merovingian period, and that under Charlemagne Fulrad probably tore down all the apse except its polygonal foundations in order to construct a typical Carolingian apse with a semicircular exterior. Inasmuch as Professor Crosby accepts the historical supposition "that the church was begun under Pepin and finished under Charlemagne," it is then a question of how literally we should take the mention of the new building in the Diploma of Charlemagne, February 25, 775, in which it is stated that, "we have built with a new construction" (*a novo aedificavimus opere*). Apparently the author's reasons for not accepting this statement literally are that "there is no positive evidence that the building was begun under Charlemagne," and that it would have been unusual for an important church to have been completed in three years, that is between the end of 771 when Charlemagne came into control of the region around Paris and 775 when the church was dedicated. It might well be argued, however, that the dedication does not imply the completion of the church, and that the tearing down of the apse, perhaps to provide for the new crypt, would not have materially lengthened the time of building, and is what we might expect Charlemagne to have ordered done. Polygonal apses, which are characteristic of Eastern church architecture, appear consistently in the Exarchate from the fourth through the ninth century, and occur sporadically in different parts of Europe during the Merovingian period, but are practically unknown on Carolingian churches. Fulrad's church with the earliest known Carolingian transept was built, as Professor Crosby points out, in the "Romano more" which he suggests meant "a continuous transept with a single apse." Therefore, from his own argument regarding the "Roman custom" there are good reasons to believe that Charlemagne, with his respect for things Roman, would have been just as particular here at St.-Denis about conforming to the Roman convention of combining a semicircular apse with a continuous transept as he was about his other Carolingian churches. Once the polygonal apse is questioned, then there is no necessity of associating the annular crypt of Fulrad's church, the first of its kind to appear north of the Alps, with Ravenna, where according to Corrado Ricci such crypts were introduced into the Exarchate churches only after they were turned over to the Benedictines. Instead Professor Crosby could disregard the problematical dates of the annular crypts in Sant' Apollinare Nuovo and in Classe and hold to the presumption that the east end of St.-Denis, including the annular crypt which had appeared in Roman churches as early as the seventh century, conformed strictly to the "Roman custom."

The structure and elevation of the church are discussed in Chapter VII, "Tentative Reconstruction." The observations of the masonry are most illuminating, especially the explanation of the irregular series of concavities cut on the exposed faces of the stones which he suggests "served to provide a rough base to which plaster would adhere." As a result of his study of the foundations, which gave him the actual level of the pavement of the eighth-century church in relation to the existing levels of the present structure, Professor Crosby has been able to work out the height of the non-existent columns in the nave arcades of Fulrad's edifice. At the crossing he restores a wooden bell tower, and from the textual evidence is able to recreate the church with one of the earliest known towered façades in Western Europe, thereby indicating that this Carolingian church represented an important step in the evolution of monumental church architecture.

For the first time Professor Crosby is able to give an accurate plan of Hilduin's chapel which was added to the east end of the church in 832, "in response to the growing cult of relics." This *crypta*, partially underground, was presumably a one story structure consisting of three sections, separated by solid walls, the central section terminating in an apse. Since he considers it probable that the present tunnel vaulted chamber of the "caveau royal" was the central chamber of Hilduin's chapel, Professor Crosby restores the three parallel sections of the chapel as each having been covered with a low tunnel vault, the whole protected by a gabled roof of wood. Inasmuch as the chapel contained three altars he associates it with that type of structure known as an "ecclesia triplex," symbolizing the Trinity, which in the eighth and ninth centuries was sometimes added to monastic churches. That this addition to Fulrad's church with its space in front of the three chapels and around the original crypt "ultimately gave rise to the ambulatory around the choir" (p. 165) of later Romanesque churches and "may have had its origin in eastern Christian architecture" (p. 182) are both tentative suggestions open to argument. Inasmuch as the author's evidence for a possible Eastern origin is slight, there is no point in a review of discussing what Eastern regions were sufficiently accessible to have exerted any direct influence upon the building of a Carolingian reliquary crypt. The statement, however, that Hilduin's chapel may have ultimately given rise to the later Romanesque ambulatory raises a complicated question which Professor Crosby did not deal with very fully. It seems as if some reference should have been made to the crypt of the church in Deas of 836 (Dr. Paul Frankl, *Die frühmittelalterliche und romanische Baukunst*, p. 29, fig. 48) which in many respects is similar to Hilduin's chapel, and to Gall's study of the origin of the ambulatory (E. Gall, "Studien zur Geschichte des Chorumganges," *Monatshefte für Kunstwissenschaft*, V, 1912, pp. 508–519).

The scaled drawing of apsidal chapels (fig. 70) suggests a suspiciously neat solution; that is to derive the idea of Hilduin's chapel, along with other indications at St.-Denis of a Carolingian revival of Roman tradition, from the apparently similarly shaped mausoleum of the Probi, which was attached to the apse of the Old St. Peter basilica. The author argues against this only on the grounds that there were solid dividing walls in Hilduin's chapels and columns in the Roman mortuary chapel, but this derivation is open to serious doubt for other reasons. Without a modern plan this fourth-century mortuary "temple" would never have been thought of as an actual part of the church because Mafeo Vegio's fifteenth-century description and Alfarano's drawing of 1590 make it evident that it did not open into the basilica. In fact it is not even known whether Alfarano's drawing, made over a century after the mausoleum was destroyed by Nicholas V between 1447 and 1455, and not in 1328 as Professor Crosby says (p. 179, note 51), can be accepted as reliable evidence regarding its shape, proportions and exact location. Undoubtedly nearly all early mediaeval crypts and chapels, frequently altered and rebuilt, present serious difficulties to the scholar until they have been excavated and studied as the author did at St.-Denis. One wonders whether Professor Crosby was not perhaps steering clear of one of these difficulties when he did not discuss the striking difference between Hilduin's chapel and St. Ludger's chapel on the Salvatorskirche at Werden which was carefully studied and somewhat theoretically restored by W. Effmann (*Die karolingisch-ottonischen Bauten zu Werden*, figs. 18, 19, 20). St. Ludger's chapel, which presumably antedated the one at St.-Denis by several years, is important in the Carolingian development, first because it was probably a single rectangular chamber, covered by a tunnel vault, opening off an annular crypt, and second because it had walls so much heavier than those in Hilduin's chapel to carry a vault of much narrower span. This comparison does not imply that Professor Crosby's reconstruction of Hilduin's chapel with large tunnel vaults supported on relatively light walls is necessarily open to serious doubt. It does, however, raise

a question of contemporary Carolingian methods of vaulting which should be discussed before we can surely assume that the existing tunnel vault of the "caveau royal" goes back to the Carolingian period and is therefore conclusive evidence that Hilduin's chapel was vaulted.

Regardless of where the chapel of Hilduin, probably three part and tunnel vaulted, had its origin, it is an important monument in the development of monastic architecture, undoubtedly a contributing factor in the evolution of the Romanesque chevet and perhaps foreshadowing the tunnel vaulted hall type of church. After his very distinguished treatment of the Carolingian church of St.-Denis everyone will look forward to the publication of his second volume where he will deal with Suger's great Transitional church which was an even more significant structure in the history of mediaeval architecture.

E. BALDWIN SMITH
Princeton University

* * *

In this book Professor Crosby presents the first volume of his general study of the Abbey of St.-Denis. The work is based upon an exhaustive re-examination of the documentary sources of the Abbey's history and the investigations undertaken by previous scholars. This is supplemented and in part corrected by a series of excavations and soundings undertaken by the writer but unfortunately cut short by the oubreak of the war. The important position of St.-Denis both in French history and in French art is sufficiently obvious and has resulted in the production of a very extensive literature on the subject, but the earlier periods have been so clouded by legend and obscured by the ill-reading of available facts, that a modern survey of both history and structure is not only desirable in itself, but may be expected to throw a new light on architectural development in the earlier periods. In both these directions the book will in no wise disappoint the student, for the author has not only provided a clear account of the historical facts, but has gone far to prove that the eighth-century church of St.-Denis forms a very important landmark in the architectural history of the Carolingian age.

The first four chapters of the book deal with Saint Denis himself, with the early history of the Abbey and with the first church. The author accepts the very reasonable mid-third-century date ascribed, by Gregory of Tours, to Saint Denis. Of the structure and even of the precise position of the first church built over the tomb of Sainte Geneviève in the second half of the fifth century, nothing is certainly known. It was restored by Dagobert and the Saint's tomb was the cause of the death of a marauder in 570. Professor Crosby's notes on the form of the Saint's tomb (pp. 42 and 71) at this time are very reasonable; it may be compared with the surviving tombs at Jouarre.

The gradual development of the legend of Saint Denis and his church may further be compared to the parallel and in some respects very similar development of the legend of Saint Joseph of Arimathea at Glastonbury, which likewise includes a divine consecration of the church and the subsequent addition [by name], of minor characters.

In Chapter IV Professor Crosby discusses the thesis proffered by Havet and Levillain that this first church of St.-Denis was situated on the ground now occupied by the parish church of St. Denis-de-l'Estrée at quite some distance from the Abbey Church. He adds to this discussion the counter-arguments which would lead to the assumption that already the first church existed on or near the present site. The transfer of the Saint's remains from St. Denis-de-l'Estrée to the present site of the building of the Carolingian church, as suggested by Havet and Levillain, is one that we think requires even greater hesitation than is displayed by the author. Such a transfer is in the highest degree unusual when it implies removal from one site to another in the same town, rather than a mere translation to a more honorable position in the same church.

The next three chapters, V, VI, and VII, deal with the history of the Abbey under the Carolingians and the building of Abbot Fulrad's church. In this period the Abbey assumed the important position that it afterwards retained. The new church was consecrated in 775 and was probably begun in the reign of Pepin the Short (died 768), who was buried before the west doorway. The choice of such a place of burial may be compared with the parallel instances of Angilbert at Centula and of St. Swithin at Winchester. Professor Crosby deals exhaustively with the surviving remains of Fulrad's church, with the parts he has uncovered by excavation, and with the probable reconstruction of the building itself.

In regard to the first of these points, the base of the main apse, much altered and refaced, is all that now remains visible and this apse is remarkable in that it is semicircular within and polygonal without, a form which belongs rather to the earlier than to the Carolingian age and relates to an eastern rather than a Roman origin.

The general lines of the church, as they appear from Mr. Crosby's and earlier excavations, consisting of an aisled nave, a long transept and a shallow apse to the east, appear to represent the first instance of that return to the fourth-century Roman tradition represented by St. Peter's, St. Paul's, and other Roman churches. Professor Krautheimer has recently shown that this early form was first developed in Rome itself and extended chronologically little beyond the first century of the Peace of the Church, until it was revived again under the early Carolingians and reintroduced in Rome itself.[1] It is remarkable that this type of plan is so confined in its distribution; as outside the areas named its appearance is confined to such isolated examples as the Church of the Loaves and Fishes at Tabgah in Galilee[2] and the late Saxon Cathedral of North Elmham[3] (Norfolk). Professor Crosby suggests (p. 112) that the adoption of this form may be reflected in the phrase "Romano more," as used in the early ninth century with reference to the church at Fulda, though its precise implication is uncertain. The term was, however, used at an earlier period, very widely, and seems furthermore to bear implications as general as the analogous expression "manu Gothica";[4] its use in eighth-century England seems to imply, rather vaguely, the manner of the south and a similar indecisive meaning may have been attached to it elsewhere. In regard to the purely constructive and architectural features of the building, a number of points arise which may be worth a little further consideration. The pronounced gouge-dressing of the internal masonry of the church is explained by Professor Crosby as serving as some key for a plaster surface, and he has indeed found stones with the plaster in position; it may be, however, that this is accidental and that the tooling is actually the quarry-tooling of the stone which would only be suffered to remain on an exposed surface if it was intended to be plastered. The supposed cylindrical columns of the nave are, as the author points out, unusual in a building of this period, but they certainly occur outside the areas in which antique material was available; thus recent excavations in the early nave at Silos have shown a similar arrangement in a singularly remote situation. The capitals in the Cluny Museum, illustrated on Plate 31, though not certainly attributable to St.-Denis, are not, we think, at all unlikely in work of that period and under royal patronage; the very accentuated capital, 31d, for instance, is closely akin in its very exaggerations to capitals at Aachen and the Composite capitals at Lorsch are as sophisticated as anything shown on the plate.

1. Richard Krautheimer, "Carolingian Revival of Early Christian Architecture," THE ART BULLETIN, XXIV, 1942, pp. 1–38.
2. J. W. Crowfoot, *Early Churches in Palestine*, London, 1941, p. 74.
3. *The Antiquaries Journal*, VI, 1926, p. 402.
4. Used in reference to the sixth-century church of St.-Pierre, Rouen.

The scale of the Carolingian arcade has been arrived at in a convincing manner by the author, from the fortunate survival of the responds of Suger's narthex, which were evidently designed in connection with the then still existing earlier nave. The documentary evidence suggests that Fulrad's nave to the west was terminated by a porch flanked by twin towers, scanty remnants of which seem to have come to light in Professor Crosby's excavations. The unexpected importance of this church in the architectural development of the period renders a detailed study of its remains and an attempted reconstruction of the main lines of the building highly desirable, and this the author has accomplished in as convincing and definite a manner as the material and documentary evidence permit.

The eighth chapter of the book is devoted to the eastern chapel of 832 built by Abbot Hilduin. This seems to have belonged to a group of structures, forming extensions to earlier buildings, which are to be found widely scattered in the central parts of the Carolingian empire. Although structures of a similar form but of different purpose are to be found at a far earlier period, yet it seems probable that the chapel at St.-Denis slightly antedates the example at Grandlieu which has hitherto been considered the earliest instance of the Carolingian East Chapel. The author shows that these structures were not only motivated by the increased cult of relics but may likewise be connected with the *Ecclesia triplex* which in itself represented the adoration of the Trinity. Excavation proved sufficient to establish the general accuracy of Viollet-le-Duc's dating of the structure of the Caveau Royal and the adjoining aisles and to determine the triple plan of Hilduin's chapel. It would seem probable that the chapel was of the single story type, partly sunk below ground level, which was the normal type of the later chapels of this nature. The extremely slight structure of the walls, however, is a remarkable feature and would seem to render any roofing with a stone vault a hazardous undertaking.

The book concludes with a bibliographical note and an index.

Professor Crosby's work will be welcomed by all students as a first installment of a definitive survey of a building of major importance in the development of mediaeval architecture. In this study, knowledge has moved rapidly forward in the last generation, and St.-Denis may well prove of the highest evidential value in any future survey of the subject.

A. W. CLAPHAM
Cambridge, England

ALEXANDER COBURN SOPER, *The Evolution of Buddhist Architecture in Japan*, Princeton, Princeton University Press, 1942. Pp. xvi + 330; 211 illustrations. $10.00.

During a three years' stay in Japan, from 1935 to 1938, as a fellow of the American Council of Learned Societies, the author had the opportunity to acquaint himself thoroughly with the outstanding monuments of Buddhist architecture in Japan and with the vast literature concerning them. The present volume shows that he has availed himself of this opportunity to the fullest extent. Indeed his excellently written book is a mine of information, well presented.

I

Mr. Soper begins with a chapter entitled "Historical Introduction" wherein he recapitulates the well known facts about the introduction of Buddhism to Japan from Korea, and its early vicissitudes. In 552 A.D. the Korean kingdom of Pekche sent a plea for help to Japan and bolstered it with a gift of Buddhist scriptures, banners and a bronze statue of a Buddha. This cannot have meant much to a country where the arts of writing and reading were as unknown as Buddhism. But a Japanese mission to Pekche, returning in 577, brought back an ascetic, a teacher of meditation, a nun, a reciter of dhāranīs (magic formulas), a maker of images, and a temple architect. In 588, Pekche sent two more temple architects, a caster of pagoda spires, tilers, and a painter. One of the obvious reasons for this surprisingly quick acceptance of a foreign creed was that the new religion was believed to offer a better guaranty of national well-being and therefore to be superior to the native religious tradition. It was thought to be an excellent means to safeguard and secure the health of its adherents. Thus it was natural to ask for foreign teachers in the new faith. It was not quite so natural to ask simultaneously for foreign artists to come to Japan. The reason was that Buddhism had at this time a long history behind it during which it had not only developed a strong organization and definite needs but also a definite canon for buildings, statues and paintings, necessary to the proper conduct of its religious life and worship.

These things could not be supplied by the native and had, therefore, either to be imported or to be made by imported experts. It would be reasonable to expect the first Buddhist temples in Japan to be Korean temples transplanted to the islands. They were, but in name only; for Korea had found herself a few centuries before in the same situation with regard to China, as Japan now found herself with regard to Korea. Buddhist temple architecture in Korea was actually Chinese, and so consequently was Buddhist temple architecture introduced from Korea into Japan. There can be no doubt that the Japanese soon became aware of the fact and therewith of the existence of a culture, undreamt of in magnitude and splendor, of which Buddhism was but a part. Thus it was the new faith that made them turn their eyes to China. In 604 the Chinese calendar was introduced, and the Seventeen Articles Constitution proclaimed. The main object of the Constitution was to provide a theoretical basis for a strong imperial government; but the second article recommended the worship of the *triratna* or Three Jewels: the Buddha, the dharma, and the Buddhist community. The next two centuries saw almost hectic efforts to absorb as much of Chinese culture as was possibly compatible with the Japanese nature.

To provide the proper background Mr. Soper includes in his book a few excellent pages on Chinese architecture. Very important is his assertion (p. 9) that already in Chou times "the major architecture of the period, whether mansion or ancestral temple, was laid out with inflexible symmetry along a south-to-north axis; and that the principal buildings were grouped around a courtyard, with a gateway to the south and the main hall raised on a platform to the north, precisely in the fashion of monumental architecture in China in every succeeding period to the present." Consequently one of the fundamentals of Chinese architecture according to the author is its characteristic lack of relation to environment: "At its most characteristic, Chinese architecture shows no interest in the world around it. Its qualities — the inflexible axes, the symmetry, the mathematical rhythms, the geometrical forms — are entirely opposed to the . . . picturesqueness of Nature." This is contrasted with the Japanese ideal: "The Japanese had no desire to make his architectural environment a protest or reaction against the qualities of Nature. His whole instinct was to design and build in conformity to the natural world, to produce an architecture as closely bound to its setting as the Japanese himself was bound to Nature in his daily life." It is this reviewer's opinion that this statement ought to be reformulated; Chinese architecture was never meant to be a protest or reaction against Nature's order but was intended to be an interpretation of this very order in terms of buildings.

It is strange that in the discussion of such profound problems Mr. Soper forgot to mention the obvious, namely, that Chinese (and Japanese) architecture is architecture in wood, and that it places an emphasis on the roof that is unknown in any other quarter of the world.

II

There remains the question why China was able to impose her own architectural concepts upon the layout of a Buddhist temple. Buddhism had come to her as a foreign religion, as it came later to Korea and Japan. Yet it seems as if from the beginning the plan of a Buddhist temple in China was Chinese, and not Central Asian or Indian. To answer the question Mr. Soper points to the close resemblance of religious and secular architecture in China: the explanation lies in "the great age and prestige of Chinese architectural tradition on one hand, on another the comparative simplicity of Buddhist requirements for ceremony and monastic life; on a third, perhaps, the completely alien and unreproducible character of Indian style" (p. 40).

I think that these two propositions need some qualification. First, it is not at all a common phenomenon that secular and religious architecture are identical. This is only possible when both rest on the same basis; and this basis was, in China, geomantic. But it does not go without saying that geomantic considerations should have any power over Buddhism; there was no room for them, at least not in the Buddhism which came to China. When it came, it was a fully developed religion with definite demands for buildings, paintings, and statues. These things were part and parcel of Buddhism, long before it got a firm hold in China. One is led, therefore, to expect a situation in China similar to that in Japan, namely, an absolute dependence in matters of religious art on the country whence Buddhism had come. This was, in fact, the case. Buddhist painting and sculpture stood at the beginning under the overwhelming influence of Central Asian (not Indian) art; to be more exact, it was Kuchean (sometimes called Tokharian) painting and sculpture which provided the models for early Buddhist art in China. The same holds for early Buddhist architecture; the cave temples of Tun-huang, Yün-kang, and Lung-mēn show the strongest influence from the same quarter. As to pagodas, one has to discriminate between stone, or brick, and wooden pagodas. Down to the eighth century, the brick pagodas of China paraphrased the models of Central Asia. The wooden pagodas were of native origin; they were structures of approximately the required form, and easily put at the service of the foreign religion.

But all this does not explain the fact that the layout of a Buddhist monastery in China was evidently, from the outset, identical with the typical layout of a Chinese architectural complex. The reason for this is that this traditional layout came so close to the Indian plan of a Buddhist monastery, namely, a square courtyard surrounded by cells, as to permit an adaptation without much change. However, the buildings in and around such a court seem to have been purely Chinese, at least from the sixth century onward. To understand this, it must be remembered that the temple buildings (not the cave temples) of Central Asia differed in material, form, and construction so utterly from Chinese architecture as to make their emulation, and even their adaptation a hopeless enterprise. It is as good as certain that attempts in that direction were made: the wall painting in Cave 130 of Tun-huang (from the first half of the seventh century) shows a building placed obliquely in a square courtyard. The heavy brick walls are pierced by large rectangular doors, and topped by a curved Chinese roof. The whole looks incongruous, and even ludicrous. Similar buildings must have been erected time and again, and with no better results: construction in dried brick, with thick walls, and with flat or vaulted roofs as practiced in Central Asia, and building in wood, with mock walls between the posts which support an enormous roof, were incompatible. The Chinese found that out at about the same time that they turned away from their Kuchean models in painting and sculpture.

III

Buddhist architecture in Japan was, then, at the beginning, Chinese architecture set up on foreign soil. As such, it reflects the evolution of continental architecture of which pitifully little has survived, and the study of which has scarcely started. In Japan, however, quite a number of monuments rode out time and disasters caused by nature and man; and the Japanese have been very keen about these witnesses of their past. Their scholars have scanned all written documents: temple records, inventories, biographies of famous clerics, diaries of Buddhist and lay dignitaries, and official or private court chronicles. The net result of these labors is a great amount of information bearing upon the history of temples and the several buildings that make up a temple, or monastery. Excavations, and a careful study of the monuments have considerably added to this fund of knowledge. Mr. Soper makes the best imaginable use of the work done by these native investigators; yet it would be a mistake to think of his book as of a mere compilation of their research. On the contrary the author is highly discriminating in weighing the evidence; he inevitably arrives at new and independent conclusions.

In dealing with the history of Buddhist architecture in Japan, Mr. Soper throughout his book uses an all-over pattern: for each period into which Japanese history is customarily divided he gives a list of existing buildings and presents very comprehensive résumés of what the literary documents have to say about them. He then proceeds to discuss the general monastery plan, its continental affinities, and the most important building of such a complex, the main icon hall; here again plan and Chinese solution are analyzed. Then comes a rather lengthy discussion of "structural members," such as brackets, beams in the wall plane, column bases and platforms, doors and windows, transoms, roofs and their ornaments, beams and inter-beam supports, the gable field, ceilings and canopies, and decoration.

From the seventh century when Chinese architecture was introduced to Japan, to the fourteenth century when Buddhist architecture became petrified, a logical evolution seems to dominate the development. At the beginning and especially during the eighth century Buddhist buildings in Japan are merely a reflection of the contemporaneous development in China. During the Heian period (784–1185), which is usually thought of as a time when the hectic grasping of things Chinese gave way to their gradual absorption, the extant monuments give no evidence of any changes in Japanese architecture. But in the Kamakura period (1185–1334) a new type of hall emerges victoriously, "radically different in all fundamentals of design, and as thoroughly Japanese as the earlier was Chinese" (p. 141). In ground plan, it is approximately square, instead of being oblong; its interior is divided into two parts by an east-to-west partition, the southern half being reserved for public, the northern half for secret worship; the two halves are subdivided into oblong rooms of varying size each with a ceiling of its own. This aggregate of rooms under one roof was made possible by the development of the Japanese double-shell roof, the construction of which remains invisible. The principle of the double-shell roof must have been known to the Chinese as early as the sixth century; but the more than scant material of pre-Ming times makes the use of this construction in China appear the exception rather than the rule. Moreover the rigid interdependence of roof and ground plan which predominates in Chinese architecture did not allow for the freedom of planning which was linked to this type of roof after its introduction into Japan. It is the author's contention that this new type of hall was not a sudden innovation but rather the product of a slow evolution, the successive stages of which go back to the tenth century. While the earlier stages cannot be found in extant monuments they are documented by texts describing such buildings with double-shell roofs of the Heian period. Mr.

Soper's reconstruction of the Myōrankuji Lecture Hall (fig. 91) is an attempt to show the appearance of an early example of a hall with this roof type.

Contemporaneously with the rise of a new type of hall came two new waves of influence from China, one decidedly ephemeral in the second half of the twelfth, the other very strong and lasting in the second quarter of the thirteenth century. The latter was ushered in by the Zen sect; and the solutions introduced then have remained characteristic of this sect's architecture down to the present.

It would not be difficult to point to a few questions about which different opinions can be held, such as those raised by the various forms of pagodas (by the way, Mr. Soper does not note that the *tahōtō*, the single-storied pagoda, that appears in Japan not before the ninth century, is depicted on the walls of Cave 70 in Tun-huang, at about 700 A.D.). There is again the question why any Buddhist building in Japan can be told at once from any contemporaneous Chinese building, after the height of continental influence in the eighth century. Mr. Soper, who has devoted so much space to the discussion of what he calls "structural members," should have seen that the most important of them, namely brackets, columns, and beams in the wall plane, stand out more clearly in Japan than in China. In Japan, their tectonic function is very strongly emphasized, as it was, apparently, in Chinese architecture of the T'ang period. But while Chinese architecture was to break away from this ideal of perfect clarity, Japan adhered to the ideal with a tenacity which demonstrates that it conformed to her deepest instincts. Perhaps the most important question is whether any changes in the attitude toward space ought not to be looked for in the arrangement of buildings and courtyards rather than in the interiors of single edifices. But it would be very unfair to raise such a question since it probably could not be asked, and certainly could not be answered without knowledge of the material presented by Mr. Soper. This presentation is, I repeat, as thorough, conscientious and comprehensive as one could wish. The book is beautifully printed. Chinese and Japanese names and terms are not only transliterated, but appear also in their original forms. Important quotations from indigenous texts are printed in the original languages, as well as in translation. The illustrations are of varying quality. The many plans and elevations are excellent, and highly welcome; a few more plans of whole temple or monastery complexes would have been of great help.

LUDWIG BACHHOFER
University of Chicago

CHARLES H. MORGAN, II, *The Byzantine Pottery* (Corinth, vol. XI), Harvard University Press, Cambridge, Mass., 1942. Pp. XV + 373; figs. 226, pls. LIII and frontispiece. $15.00.

During the early seasons of the American excavations at Corinth, which were begun in 1896, very few pieces of Byzantine pottery escaped condemnation as "Byzantine rubbish." Later years have brought about a more liberal view, and Mr. Morgan's careful publication of the Byzantine pottery found through the season of 1937 does much to atone for past indifference. Some fine pieces undoubtedly lie at the bottom of the early dumps, but one can be thankful for the wealth of material which has since been allowed to remain in the light of day, and in some cases has even been given an honored place in the museum.

Mr. Morgan's book is more than the publication of the results of one excavation; it is, in effect, a history of Byzantine pottery. The first chapter deals with mediaeval methods of manufacture in the light of the discovery of several potters' workshops at Corinth; the second with classification and terminology. Mr. Morgan then devotes a separate chapter to each of the main categories of Byzantine pottery, classified according to type of decoration. Each group is analyzed from the point of view of artistic and chronological development. A brief summary concludes the discussion, and the catalogue of 1788 pieces constitutes the remainder of the book.

Mr. Morgan's introductory remarks on the history of Corinth provide a setting for the exposition of the most nearly complete series of Byzantine pottery ever published. The city's strategic position on the Isthmus of Corinth and its resulting prosperity are reflected in pottery of the ninth through the twelfth centuries; the rapid decline of Corinth after the Fourth Crusade happily cut the series short at the moment the decadence set in.

The question of the location of the chief centers of production of Byzantine pottery is still unsolved. The present publication demonstrates that some fine wares were made at Corinth in the late eleventh century but that they were in great measure supplanted in the twelfth by foreign imports. Excavations both at Corinth and at Athens (the former more than the latter) have produced in considerable quantity examples of these supposed importations. They are easily recognized by their fine, hard, red clay whose strength permits a thinness of walls not found in the local pieces, and by the fact that they are usually slipped and glazed on the exterior as well as the interior. The uniformity of style and fabric bespeaks a single center of manufacture whose location has not yet been identified. It is probably illogical to look for it in Greece. Archaeological evidence apparently excludes Corinth; some good examples have been found at Thebes but there is no evidence that they were made there; the pottery from Saloniki seems to represent an entirely different current, and Athens had long since sunk to the level of a small provincial town, probably producing little or no pottery. The great sites of Asia Minor were excavated at a time when the only concession to the Middle Ages was the publication of architectural remains, but a few good sherds have found their way from these excavations to the Kaiser Friedrich Museum in Berlin. Talbot Rice's publications of the Hippodrome in Constantinople show that that city, if not the center of production, certainly drew from the same sources as the cities of Greece. The light may yet break in Constantinople or Asia Minor.

Although the mystery of the source of the best twelfth-century pottery remains unsolved, there is nevertheless ample evidence that Corinth produced a variety of good imitations and even contributed some innovations. Mr. Morgan's section on the potters' establishments not only proves that Corinth had a flourishing ceramic industry, but also sheds light on mediaeval methods of manufacture. The detailed description of a modern Greek potter's workshop supplements the picture of the similar factories excavated in Corinth, and shows that the process of pottery making has survived almost unchanged until the present time. The discovery of unfinished pieces of different wares in the same kilns gives valuable evidence as to what types of pottery were being produced contemporaneously.

The student of Byzantine pottery looks with a certain envy on the well established classification and terminology of the classical period. In a subject still in the comparatively early stages of study, some groping for a satisfactory system is inevitable. Mr. Morgan has incorporated and improved on the earlier efforts in this direction. Since it would appear that most phases of Byzantine pottery are represented at Corinth, his classification should provide a standard, both for shape and decoration. The list of decorative terms, covering as it does most of the common ornamental themes, will be a boon to cataloguers who are often baffled by seemingly meaningless patterns. The great quantity of pottery at the author's disposal has made it possible for him to retrace the evolution of some of the most decadent motifs from an original recognizable design. One may hope that the nomenclature here proposed will be generally adopted.

It may be regretted that a greater number of closed deposits has not been found at Corinth to help in the dating of the pottery. Nevertheless, although very few individual pieces from the excavations can be dated definitely by numismatic or other external evidence, in an excavation so vast as that of Corinth, the constant recurrence of the same types of pottery with certain coins can be and has been used to build up a fairly convincing chronology. Where information is available from other sources there are no significant discrepancies. If the late eleventh-century date of the erection of the Church of St. John Theologos is confirmed, forming a *terminus ante quem* for the kiln destroyed during its construction, it is a pity that no illustrations, or at least descriptions of the wasters found in that kiln are given. The late eleventh century is still somewhat uncharted so far as the development of Byzantine pottery is concerned, and further clarification would be welcome. The text does not make it plain whether the church dates the pottery or vice versa.

Following a classification according to type of decoration, of which the three main categories are Plain-glazed, Painted, and Sgraffito wares, Mr. Morgan discusses in detail all three types, with their subdivisions. The account of the development of the chafing dish, fragments of which are found in nearly every deposit of brown-glazed pottery, should prove useful to excavators since the shape is easily identifiable, and even very small fragments may betray significant variations in form. Chronological data on the brown glaze period have until now been sadly lacking.

Corinth is comparatively rich in ninth and tenth-century pottery and has produced a number of hitherto unknown types of Polychrome and White ware, thereby supplementing the material presented by Rice in his publications of the Constantinople pottery. The late eleventh and early twelfth centuries saw the introduction of Imitation Lustre and Measles ware, both of which had a relatively brief span of life and appear to have been manufactured in volume only at Corinth. Slip Painted ware, on the other hand, is found in profusion on most Byzantine sites and seems to have had a life of at least two centuries — aside from its different manifestations in Turkish and modern times. Excavators will be grateful for Mr. Morgan's clear analysis of its shapes, designs, and dating.

A final innovation in Corinth before the darkness set in was the introduction of Proto-Majolica, at about the beginning of the thirteenth century. The appearance in Corinth of this type of pottery, previously known only from the excavations of the Pilgrims' Castle at 'Atlīt, presents a new factor in the search for its home.

But although rare types were produced at, or imported to Corinth, the great bulk of the pottery is similar to that found on other Greek sites. The general chronological development attributed to Green and Brown Painted ware is paralleled at Athens, but the dating of this ware to quarter centuries must be treated with some caution. The members of the second subdivision of Group III (p. 79) are not, unhappily, "a purely local phenomenon . . . the product of a single establishment," unless that establishment carried on a flourishing export trade; their close relatives have been found all too frequently in Athens.

Sgraffito wares form approximately half the total of catalogued pieces and provide abundant illustration of the finest period of Byzantine pottery — from the last quarter of the eleventh century to the end of the twelfth. Although the dating, as noted above, is established chiefly by the coins generally associated with a given type, and is therefore tenuous, the volume of pottery from Corinth is so large that results of this kind are not without significance. A few gaps left by earlier attempts to establish a chronology have been filled in, and it is reassuring to note that the new evidence confirms the dating arrived at from the pottery in Athens and elsewhere. It is now possible to trace the gradual development of Sgraffito wares over a period of two hundred years.

Mr. Morgan produces evidence, particularly in the form of wasters from kilns, to show that the earliest Sgraffito wares from Corinth, dating from the late eleventh and early twelfth centuries, were of local manufacture. These early wares are divided into four classes in a manner not altogether convincing. There seems to be no adequate reason, for instance, for assigning to the same group — the "Spiral Style" — the two freely drawn birds, filling the whole surface of a plate (nos. 1011 and 1012), and the conventional rinceau medallions surrounded by concentric bands of ornament which make up the rest of the group. Although it is reasonable to suppose, since most of the early pieces are evidently the products of a few local factories, that single artists are each represented by more than one existing fragment, Mr. Morgan's attributions are not entirely persuasive. The "Interlace Master," for example, displays an astonishing diversity of style as the artist of a centaur trampling a dragon, surrounded by a band of Kufic against an imbricated background; again of a bird in a medallion within a running palmette band; once more of interlace medallions surrounded by linear Kufic. Finally the horse's hoofs in no. 968 are drawn very differently from those of no. 969 and seem unlikely to have been designed by the same hand.

On the other hand, the classification of Incised-Sgraffito into the Medallion Style, Intermediate Style, and Free Style recognizes clear-cut distinctions and should prove convenient in the future. The Intermediate Style is rare and undocumented numismatically, but the dating of the Medallion Style in the middle twelfth century and the Free Style in the latter part of the century is supported by numismatic evidence both at Corinth and at Athens.

From the point of view of subject matter, the second half of the twelfth century is the most rewarding period in the history of Byzantine pottery. Although figure subjects are not unknown before then, they are comparatively rare. By the middle of the century, however, the Byzantine warrior springs into prominence, and for the next fifty years the curly-haired, round-faced figure, clad in a fustanella and accoutered with all the trappings of a princely *pallikari* is a recurrent theme. The abundant figured pieces from Corinth should provide fertile ground for speculation to anyone not satisfied with the purely *genre* character attributed to most of the scenes. The warrior type may be tentatively identified as a representation of Digenis Akritas, whose exploits were the subject of many songs sung all over the Greek world from the eighth century to the present day; some other scenes may perhaps also be assigned to the life of the hero. Much of the figured ware is fragmentary, but it suggests the existence of a hitherto unsuspected storehouse of Byzantine secular illustration. No. 1221, which Mr. Morgan suggests may be Perseus with the head of Medusa, might possibly be a scene from the theater. The tall headdress is strangely reminiscent of the *onkos* of theater masks, and perhaps we are justified in supposing that the familiarity of the Byzantine illuminator with the ancient theater may have been shared by the potter.

The catalogue, including all the more important pieces and also designed to preserve the proportion of all wares found at Corinth, represents a careful selection from a vast quantity of pottery. The shapes of all periods are generously illustrated with profiles. The photographs are abundant and for the most part excellent, and the water colors, well chosen to illustrate every main type, are almost all uniformly good. The only one that seems to fail to do justice to the original is unfortunately the frontispiece; the muddy color of the reproduction will be a disappointment to all who remember the clear yellow of the stag plate — one of the finest existing specimens of Incised ware.

Mr. Morgan is to be congratulated on this book, which must remain the authoritative work on the subject for some time to come. It will be indispensable to all excavators and students of Byzantine pottery.

M. ALISON FRANTZ
Washington, D. C.

HUGO BUCHTHAL and OTTO KURZ, *A Hand List of Illuminated Oriental Christian Manuscripts*, London, The Warburg Institute, 1942. Pp. 120; 1 pl. 15*s*.

The aim of the authors in preparing this hand list has been to facilitate research in the field of East Christian manuscript illumination "by making the preserved material more easily accessible to students of East Christian Art." In their brief preface they note that the part played by the non-Greek elements in the formation of Byzantine art can be adequately understood "only after the complicated process of evolution within the religious art of the Eastern Churches has been made sufficiently clear." It is important, therefore, that the painting of the Christian East should be studied with greater care than it has been done heretofore.

Five hundred and fifty-six illuminated manuscripts, dating up to the end of the fifteenth century, are distributed as follows: 66 Syriac; 20 Christian Arabic; 224 Coptic; 2 Nubian; 37 Ethiopic; 184 Armenian; 23 Georgian. Within each group the manuscripts are listed in alphabetical order, following the names of the cities or of the private owners. For each manuscript the necessary information is given first: the contents of the manuscript, its date, place of origin, the names of the scribes, painters and owners and the general type of illumination whether miniatures, ornaments, initials. Whenever the manuscript does not bear a specific date, the assigned date is mentioned in the bibliographical notice which follows the description; whenever opinions differ the different dates are presented. This bibliographical notice lists all the publications which contain relevant information, omitting only those in which the manuscript is mentioned without giving any additional details of interest. A list of books and articles frequently cited and two indices complete the volume. The first index lists the manuscripts "whose date of origin is known through a scribe's or illuminator's colophon"; the second those "which can be dated on palaeographical or stylistic evidence only."

All students of East Christian art will appreciate the vast amount of work which this modest volume represents and the varied material which had to be examined in order to assemble the data. The authors realize that their list is by no means exhaustive and they acknowledge that in two instances, in particular, there are many lacunae. For while in the first five groups, namely the Syrian, Arabic, Coptic, Nubian and Ethiopic, they aimed to include all known illuminated manuscripts, barring only those in which the illumination falls below a certain artistic standard, in the case of the Armenian and Georgian manuscripts they had to limit themselves to those of which reproductions are published. The list of Armenian manuscripts has been further curtailed by the fact that the authors did not have access to the numerous Armenian publications, either books or periodicals, in which such reproductions are to be found.

Even with these limitations, many of which are due to the difficulties of communication created by the war, this hand list is a very useful and helpful guide. The present reviewer, who is qualified to speak only about the Armenian manuscripts and, to a lesser degree, about the Georgian, noticed no important omissions in the manuscripts listed or in the bibliographies. Perhaps a few Georgian manuscripts of which there are no reproductions, but which are fairly fully described, might have been included, such as the Djroutchi (Jruji) and Alaverd Gospels. The former, described by Brosset, Žordania, Kondakov and Bakradze,[1] is now at Tiflis, Ethnographical Museum no. 1667. It was written in 936 at the monastery of Šatberd and the canon tables were added in 940. It contains the portraits of the Virgin and of the Evangelists, and miniatures representing the healing of the man born blind, of the demoniac and of the paralytic. The Alaverd Gospel, described by Žordania, and in the *Materialy po Arkheologii Kavkaza*,[2] was written in 1054 at the monastery of Kalipos in Bithynia; it contains the canon tables and portraits of the Evangelists. A more important omission is that of the eleventh-century Menaeon in the Sion Cathedral at Tiflis which contains eighty-one miniatures painted by Zacharias, a monk of the Iviron monastery on Mount Athos. This Menaeon was first mentioned by Kondakov, and Strzygowski[3] and many of its miniatures are described by Pokrovskij who has reproduced the scene of Jesus among the Doctors.[4]

The only serious criticism that may be made is a certain lack of consistency in the descriptions. The subjects are specified when there is a small number of miniatures, or they are indicated in a more general manner as "life of Christ" when the number is greater. Yet in neither case is the practice consistent, for, to take only a few examples, no subjects are mentioned for manuscript no. 521 (Venice, San Lazzaro, 1635) which has only two miniatures, nor do we find "life of Christ" written for richly illustrated Gospels such as nos. 467, 471, and 523. It is not clear either whether the word "ornament" includes the canon tables or not. In some cases we read: canon tables, miniatures, ornaments (e.g., no. 384); in others: miniatures, ornaments, initials (e.g., no. 410), yet this last example, a Bible in the Armenian Patriarchate at Jerusalem, contains richly decorated canon arcades. Perhaps the information was not always available to the authors, but it would have been helpful to the readers if some explanation had been given in the preface.

Similar inconsistencies occur for the names of the scribes, the painters or the owners which are sometimes included, sometimes omitted, although in most of the examples I have checked the information could be found in the publications listed in the bibliography. These omissions are regrettable since these names often make it possible to date the manuscripts, or to place them in a definite region. Omissions of the place names are rare; I have noted only one instance, the Mestia Gospel (no. 546) which was written at the monastery of Oška. It might have been helpful if the region where the manuscript has been copied had been mentioned, whenever the region is known but the actual monastery is not. This has occasionally been done, for instance for the manuscript no. 405 written at Surḥath in Crimea, but it is not mentioned for no. 478 which was also copied in Crimea.

A few corrections may be mentioned. The illustrations of the thirteenth-century Baltimore Gospel no. 539 (no. 351) are not all full-page miniatures; the greater number are introduced into the text and a few are painted in the margins. The Gospel of the British Museum Or. 5626 (no. 444) was written in 1282 and not in 1268. The date of the "Thargmantchats" Gospel (no. 373) is given as 1232, following Svirine's recent publication;[5] but since Svirine does not explain whether this is a cor-

1. M. Brosset, *Rapport sur un voyage archéologique dans la Géorgie et dans l'Arménie exécuté en 1847–1848*, St. Petersburg, 1850–1851, 12e rapport, pp. 83–84; Th. D. Žordania, *Opisanie gruzinskich rukopisej Tiflisskago Cerkovkago Muzeja Kartalino-Kakhetiskago Duchovenstva*, Tiflis, 1902, 1, p. 89; N. Kondakov and D. Bakradze, *Opis' pamjatnikov drevnosti v nekotorich khramach i monastyrjach Gruzii*, St. Petersburg, 1890, pp. 153–4. An ornate initial has been reproduced by J. Baltrusaitis, *Études sur l'art médiéval en Géorgie et en Arménie*, Paris, 1929, p. 27, fig. 38.

2. Th. D. Žordania, *op. cit.*, II, pp. 46–51; *Materialy*, VII, pp. 10–20.

3. N. Kondakov and D. Bakradze, *op. cit.*, p. 166; J. Strzygowski, "Das Etschmiadzin-Evangeliar," *Byzantinische Denkmäler*, I, 1891, p. 79.

4. N. Pokrovskij, *Evangelie v pamjatnikakh ikonografii preimuščestvenno Vizantiiskikh i Russkikh*, St. Petersburg, 1892, p. 154.

5. A. N. Svirine, *La Miniature dans l'ancienne Arménie* (in Russian), Moscow-Leningrad, 1935, pp. 94–95.

rection, based on a new reading of the memorial notice, the date 1202 should have been added in the bibliography after the reference to the publications in which this date has been given. The "Lafskhali" Gospel (no. 538) is ascribed to the thirteenth century, but on p. 16 of the appendix of the publication mentioned in the bibliography there is a short notice stating that the manuscript was written in the eleventh century.

The above remarks are not intended to diminish the value of this publication. We have, at last, a convenient guide which will be of real service for the study of East Christian manuscripts. It is to be hoped that when normal conditions are restored the authors will give us a revised edition, adding the information which will then become available.

SIRARPIE DER NERSESSIAN
Wellesley College

LIONELLO VENTURI, *Georges Rouault*, New York, E. Weyhe, 1940. Pp. 76; 150 pls. with 180 figs.; 9 figs. in the text; 3 color pls. $12.50.

Rouault is one of the great figures in twentieth-century art. The man as well as the painter counts for a great deal in his art, and the meaning of his painting is not exclusively design. Picasso, too, is provocatively present in his art, but always as an enigma. With Rouault there is identity of art and personal expression, and it is in this sense that he is often likened to Rembrandt. Mr. Venturi has, therefore, proceeded to study the artist in terms of his environment and training, his interests in the contemporary realm of ideas — social, literary, and artistic. He attempts to discover the motivations that produce this singular, unique, pictorial creation. Lionello Venturi has divided his book into two parts, and both parts are eminently readable. The first, called *L'homme et son art*, examines the man himself, his training, his religious and social milieu, aspects of his personal psychology. Comparisons with Goya, Daumier, and Toulouse-Lautrec on the subject of social conscience are fruitful. Numerous passages from letters to Rouault and writers' comments on him enlarge our knowledge of the painter considerably.[1]

In the second part, *Les oeuvres*, he is able to give close analysis to the works themselves and to the development in pictorial style without encumbering his primary discussion of the man as an artist. Writers on art would do well to study such a model when they treat contemporary art. Mr. Venturi has managed to make himself clear without hyphenating his words or inventing an esoteric language to expound his ideas.

With judgment and discretion he examines Rouault's relation to his teacher, Gustave Moreau, to the group of the *Fauves*, with whom he is sometimes too closely identified, and with Expressionism and other facets of the art of our times. He applies himself, successfully, I think, to rectifying the popular misconception that Rouault's style is the result of a study and imitation of mediaeval stained glass. He points out that Rouault's first painting after leaving the atelier where he assisted in the restoration of the late glass of St. Séverin, *Christ among the Doctors*, 1894, shows no trace of these presumed characteristics, and that the black contours and brilliant colors do not appear until 1911, when they are used for purely pictorial values to set off the colors, to serve in lieu of shadows, but not for limiting boundaries. "This likeness to glass is an apparent coincidence, not an historical explanation."

One of the most provocative portions of the book is an analysis of primitivism in modern art. It is Mr. Venturi's contention that one must distinguish different kinds of primitivism in modern art. "Il y a un primitivisme culturel qui est un effort pour redevenir primitif, dans le sens de libérer l'imagination créatrice de trop de critique, de trop de raison. Il y a un primitivisme chronologique qui est une illusion, l'illusion de remonter l'histoire à rebours, et de vivre dans un époque autre que la nôtre, éloignée dans le temps. Il y a aussi un primitivisme géographique; en effet l'exotisme n'est qu'une forme de primitivisme chronologique."

In this connection he speaks of the crushing power of the classic rules dominating the late eighteenth century that destroyed the possibility of imaginary life for neo-classic artists. The revolt against these rules led to the discovery of the beauties of Gothic architecture and the Italian and Flemish masters of the fifteenth century. Thus it was a cultural primitivism that led to a chronological primitivism with new appreciation reaching back into earlier epochs but always considered in relation to classic art. It was necessary to wait for the twentieth century in order to lead chronological primitivism back to cultural primitivism, that is, to consider a piece of Romanesque sculpture, for example, not as a primitive form in relation to the sixteenth century, but in its own perfection. "C'est alors seulement qu'une sculpture romane est devenue actuelle dans la vie artistique moderne."

It was the painters, not the archaeologists or art historians, who launched the interest in Negro sculpture which became so important for the course of contemporary painting. It was they who perceived the artistic vigor and validity of these works apart from any sequence of time or evolution of form. This discovery that an object from a distant time or from an alien culture can have artistic power apart from history or ethnology was particularly exploited by the Fauve painters in terms of Negro art where formal values were procured by free distortion. "Si au commencement le primitivisme culturel, par sa nouvelle et furieuse attaque contre la civilisation contemporaine, avait amené à un primitivisme géographique, ensuite, ce fut le triomphe du primitivisme culturel qui donna à l'art nègre son caractère d'actualité."

Mr. Venturi's discussion of various kinds of primitivism is actually another way of discussing the difference between eclectic art where the artist looks back at some other model and derives his style from that model and the free choice of form and design for a creative purpose that occurs in the work of a truly original master. A great deal of nineteenth-century art, particularly as it related to Romanticism, was frankly derivative from other forms and other periods. In so far as the artist approached with genuflection, he may be described as pursuing the geographical primitivism, that is, producing an eclectic style. Donatello, Rubens, Michelangelo are among the many predecessors employed by the nineteenth century. The greater sophistication of taste in art history appears in the new models sought by twentieth-century artists when sculptors like Bourdelle, for example, turn to Egyptian, archaic Greek, and Romanesque prototypes. Mr. Venturi substitutes the terms "primitivistic" and "primitive" for "archaistic" and "archaic."

The term "primitive" in contemporary criticism of modern art is always a source of controversy. Mr. Venturi's approach is refreshing although he stretches the term to a comprehensiveness it can scarcely sustain. But the application to Rouault is convincing and clarifying. Discussing Rouault's relation to mediaeval and Negro art, he says that "comme il avait trouvé son style sans imiter ni la sculpture nègre, ni la sculpture romane, ce style n'était point primitiviste, il était primitif . . . Le souvenir d'une sculpture, d'une mosaïque ou d'un vitrail roman nous vient spontanément en regardant une figure de Rouault. Et pourtant ni sa forme, qui est toujours inattendue, ni sa couleur qui est riche de valeurs, ne présentent de points de comparaison matériels avec l'art roman. C'est que Rouault est certainement un primitif, mais n'est aucunement un primitiviste." Much of this power to create a new and personal art he attributes to

1. Mr. Venturi's bibliography, from 1893 to 1939, includes a good deal of contemporary press criticism, and the excerpts in the text remind one that the art of criticism, by comparison with the French press of 1905, may be said to be still unborn in the United States where more *naïveté* is to be found among the reviewers than among the painters.

Rouault's profound and austere religious faith. The artist was obliged to find his own way, within himself.

I do not suppose that Mr. Venturi would wish to impose his categories of primitivism too rigorously throughout twentieth-century art, but this treatment does serve to single Rouault out from the characteristic stylistic efforts of the period with all its propaganda of art for art's sake. The creation of an original personal style would never have seemed to Rouault sufficient justification for devoting all his life and all his energies to art, although that could be sufficient with Picasso or Matisse. Mr. Venturi traces the development of that personal language of form in the second section of his book. Having established the necessity of the artist to forge a new expressive pictorial language of his own, he discussed his methods, his working habits, the unbelievable homogeneity of his themes, which remain uniform throughout his entire oeuvre, from 1903 to today. He examines the break, about 1903, from his early training and the dark chiaroscuro style of the nineties, with the gradual intensification of his power over plastic form, color, spatial coherence culminating in the work from about 1917 onward.

It is my belief that Mr. Venturi has not yielded to the temptation for over-interpretation here, that he has presented an artist of our time as a good scholar would present one of an earlier period. He has kept his distance and his faculty of judgment. The fact that the same author published the definitive work on Cézanne argues well for his critical faculties. Not only the breadth of taste and understanding required for two figures so diverse, but the sure grasp of the fundamental significance of both these artists in twentieth-century painting does credit to the author.

The book is completed by a series of magnificent illustrations. These are by far the finest black and white illustrations in a monograph on art that have come to my attention. With some previous acquaintance of Rouault's canvases one can really recreate a good deal of the color value and the textures of the pictures. The plates were prepared by Skira in Paris and will probably be the last we shall see of this superb French craftsmanship of the press. There are also three color reproductions of paintings of 1939: *Christ; Les Juges; Paysage: Le Christ au Lac de Tibériade.* Although the late paintings are usually much lighter in tonality than earlier works, the color plates appear a little thin and acid, particularly the yellow in the *Christ au Lac de Tibériade.* Nevertheless, they are far superior to most of the color reproductions we have today. It is not quite fair to compare them with Rouault's own plates, designed for printer's ink, such as *Carnet de Gilbert,* or *Le Cirque de l'Étoile Filante,* on the score of cost alone. In fact one is grateful that three of the latest paintings were published and that the artist himself made suggestions about the figures in the text.

Mr. Venturi has surely not written the last book on Rouault, but his work is a valuable addition to our knowledge of the painter. It helps to place him in the perspective of our time. The author is thoroughly sympathetic with his subject and has had opportunity to gain first-hand impressions from the artist, but it is not a book of special pleading or apotheosis. It is a book I welcome heartily, and so, I believe, will anyone who is interested in Rouault.

AGNES RINDGE
Museum of Modern Art
New York City

LETTERS TO THE EDITOR

SIR:

While I am sincerely flattered that Mr. Greene should have thought it worth while to comment in the December issue of the ART BULLETIN on the controversy between Mr. Venturi and myself arising out of my review of Mr. Venturi's *Art Criticism Now*, there are one or two remarks I feel justified in making in reply to what I understand as a kindly imputation of muddle-headedness to myself. Mr. Greene asks a number of questions about my critical principles and opinions, with the implication that these should have been expounded in the course of my review and its subsequent letter. I am grateful that he adds an acknowledgment of having "offered no constructive solution . . . for the problems they (Mr. Venturi and I) seem . . . to have raised." He did not do so, clearly, because any adequate treatment of the problems would have far outrun the limits of an incidental letter. They would likewise have far outrun the limits of a short review such as I was originally invited to contribute.

I hope elsewhere and elsewhen to accept the open invitation of Mr. Greene to participate in a "patient, protracted and cooperative effort" at least to define the basic problems of criticism, if not to solve them. In the meantime, may I point to the origin of the discrepancy Mr. Greene rightly notices between the two definitions of "taste" accepted by me in my original review and propounded in my later letter? In writing the review I had conceived my first responsibility to be that of giving, within an assigned length, as fair an idea as possible of what the book did and did not contain, and an estimate of its success in meeting its own pretensions. Any exposition of my own views was incidental to that purpose. I therefore adopted Mr. Venturi's definition of taste and (as subsequently approved by Mr. Greene) pointed out that it was inconsistent with his own procedure. When Mr. Venturi attributed to me (in a gratuitous manner also acknowledged by Mr. Greene) views that were not mine, it seemed appropriate briefly to indicate what my contrasting views actually were, and this involved a redefinition of "taste." That the discrepancy between the two definitions was fully realized by me was, I think, indicated by the use of the two phrases, " 'taste' (in the sense of the acknowledged pattern of cultural elements)," and "taste, in the view I am promulgating, consists not in" . . . etc. When Mr. Greene asks "would it not be more correct and illuminating to define taste as a function of man's *total* discerning response to art, *both* to its elements *and* to the work of art as a whole," it appears to me that that is exactly what I have done in defining *bad* taste as "the acceptance of heterogeneity as unity, in a simple failure to distinguish between distractive addition and aesthetic integration," unless, indeed, Mr. Greene is proposing to define "taste" in other than aesthetic terms and to measure it by other than aesthetic standards.

To Mr. Greene's question, "What concept of taste emerges from this argument" of myself with Mr. Venturi, I answer, "none, unless it is first recognized that two concepts were therein already distinguished." In short, I wonder whether the confusion, in this instance, is entirely mine.

JOHN ALFORD
University of Toronto

LIST OF BOOKS RECEIVED

OTTO BENESCH, *Artistic and Intellectual Trends from Rubens to Daumier as Shown in Book Illustration*, Cambridge, Department of Printing and Graphic Arts, Harvard College Library, 1943. Pp. xvi + 91; 66 illustrations. $7.50.

THOMAS CRAVEN, *The Story of Painting from Cave Pictures to Modern Art*, New York, Simon & Schuster, 1943. Pp. xx + 254; 12 pls. (in full color) + 54 illustrations. $5.00.

LORENZ E. A. EITNER, *The Flabellum of Tournus*, New York, 1944 (Studies in Art and Archaeology sponsored by the Archaeological Institute of America and the College Art Association of America: No. 1).

A. E. GALLATIN, *Georges Braque. Essay and Bibliography*, New York, Wittenborn & Company, 1943. Pp. 50; frontispiece + 12 pls. $3.50.

TALBOT FAULKNER HAMLIN, *Greek Revival Architecture in America*, Toronto, Oxford University Press, 1944. Pp. xl + 439. $7.50.

BERNARD C. HEYL, *New Bearings in Esthetics and Art Criticism, A Study in Semantics and Evaluation*, New Haven, Published for Wellesley College by Yale University Press, 1943. Pp. xii + 172. $2.50.

SIDNEY FISKE KIMBALL, *Creation of the Rococo*, Philadelphia, Philadelphia Museum of Art, 1943. Pp. xvii + 242; 274 figs. $12.00.

ERLE LORAN, *Cézanne's Composition*, Berkeley, University of California Press, 1943. Pp. 141; 38 pls. $6.50.

ELIZABETH MONGAN, *Selections from the Rosenwald Collection*, Washington, D. C., National Gallery of Art, 1943. Pp. 142; 67 pls.

Notes Hispanic, Volume 3, New York, The Hispanic Society, 1943. Pp. 138.

JOSEPH C. PLUMPE, *Mater Ecclesia, An Inquiry into the Concept of the Church as Mother in Early Christianity, The Catholic University of America Studies in Christian Antiquity, No. 5*, Washington, D. C., The Catholic University Press, 1943. Pp. xxi + 149; 4 pls. $2.00.

JOHN REWALD, *Georges Seurat*, New York, Wittenborn & Company, 1943. Pp. xx + 125; 96 illustrations. $6.00.

ELIZABETH RIEFSTAHL, *Toilet Articles from Ancient Egypt, From the Charles Edwin Wilbour Memorial Collection and the Collection of the New York Historical Society in the Brooklyn Museum*, Brooklyn, The Brooklyn Museum, 1943. Pp. 10; frontispiece + 18 figs., paper. 25¢.

The Rockefeller McCormick Manuscript and What Became of It, a Bibliographical Record, compiled by Harold R. Willoughby, Chicago, The New Testament Department, University of Chicago, 1943. Pp. ii + 12; 1 pl. (colored).

FRANK J. ROOS, JR., *Writings on Early American Architecture, An Annotated List of Books and Articles on Architecture Constructed before 1860 in the Eastern Half of the United States*, Columbus, The Ohio State University Press, 1943, Graduate School Studies, Contributions in Fine Arts, No. 2. Pp. viii + 271. $2.75.

DAVID E. SCHERMAN AND RICHARD WILCOX, *Literary England*, New York, Random House, 1943. 50 pls. $4.00.

FREDERICK TAUBES, *Studio Secrets*, New York, Watson-Guptill Publications, Inc., 1943. Pp. xii + 134; 4 pls. + 21 figs. in text. $3.50.

WILHELM VIOLA, *Child Art*, London, University of London Press, 1942. Pp. 204; 12 pls. 15/- net.

JOHN WALKER AND MACGILL JAMES, *Great American Paintings from Smibert to Bellows, 1729–1924*, New York, Oxford University Press, 1943. Pp. vii + 36; 104 pls. (7 in color). $5.00.

ALLEN STUART WELLER, *Francesco di Giorgio, 1439–1501*, Chicago, The University of Chicago Press, 1943. Pp. xvi + 430; 118 figs. $10.00.

NOTES FOR CONTRIBUTORS

1. Manuscripts should be submitted to the Editor of the ART BULLETIN, The Institute for Advanced Study, Princeton, N. J. Contributors are advised to retain an accurate carbon copy of their articles.

2. All manuscripts must be typewritten and double-spaced, on one side of the paper only, on sheets of uniform size (preferably 8½ × 11 inches) numbered consecutively.

3. Footnote references in the text should be clearly designated by means of superior figures, placed after the punctuation marks.

4. Footnotes should be numbered consecutively and typed double-spaced on separate pages subjoined to the article.

5. Captions for plates should be typed on separate pages following the footnotes. Glossy prints of photographs are preferable; drawings should be in India ink on white drawing paper or cardboard. Each photograph or drawing should be clearly marked with its figure number on the reverse.

6. Words, phrases, passages, or titles intended to be printed in italics should be underlined in the typescript. This includes titles of books, poems, periodical publications, technical terms or phrases not in the language of the article, and titles of works of art; but does not include direct quotations in a foreign language, foreign titles preceding proper names, place names, or words anglicized by usage.

7. The following words, phrases, and abbreviations should be italicized: *ad loc.*, *cap.*, *circa* (*ca.*), *et al.*, *ibid.*, *idem*, *infra*, *loc. cit.*, *op. cit.*, *passim*, *q.v.*, *saec.*, *scilicet* (*scil.* or *sc.*), *sub voce* (*s.v.*), *supra*, *versus* (*vs.*), *vide*; but not: cf., col., e.g., etc., ff. (following), fol., fols. (folio, folios), i.e., l., ll. (line, lines), p., v., vv. (verse, verses), viz.

8. Double quotation marks should be used for primary quotations; single quotation marks will be reserved for a quotation within a quotation.

9. In citing from periodicals, the title of the article should be in roman within double quotation marks, and the title of the periodical in italics. Thus:

> Adolph Goldschmidt, "The Decoration of Early Mainz Books," *Magazine of Art*, XXXI, 1938, pp. 579–581.

10. In the case of books cited, the form of reference should be as follows: 1) author's name, preceded by his given name or initials, and followed by a comma; 2) title, italicized, followed by a comma; 3) the edition where necessary, followed by a comma; 4) place of publication, followed by a comma; 5) if desired, the name of publisher, followed by a comma; 6) date of publication, followed by a comma; 7) reference to volume in small roman numerals without preceding "Vol." or "V." and followed by a comma; 8) page or column number, preceded by "p.," "pp." or "col.," "cols." Thus:

> Mary H. Swindler, *Ancient Painting*, New Haven, Yale University Press, 1929, p. 60.
>
> Charles Diehl, *Manuel d'art byzantin*, 2nd ed., Paris, Librairie Auguste Picard, 1925, II, pp. 73–78.

11. In English titles of publications, capitalize all principal words; in Latin, in addition to the first word, capitalize proper nouns and adjectives derived therefrom; in French, Italian, and Spanish, in addition to the first word, capitalize proper nouns but not the adjectives derived therefrom; in German, capitalize all nouns but not the corresponding adjectives, except those derived from names of persons.

12. Upon first reference, titles and bibliographical data should be given amply as in paragraphs 9 and 10. In all succeeding references, the shortest intelligible form should be used. Such abbreviations as *ibid.*, *loc. cit.*, and *op. cit.* should not ordinarily be used to refer farther back than the preceding page.

13. All references should be verified before the manuscript is submitted for publication.

14. The funds of the ART BULLETIN do not admit of an expenditure of over fifteen per cent (15%) of the cost of composition for alterations in articles once set up in galley proof. In order that contributors may be spared the expense of exceeding this allowance, they are urged to prepare their manuscripts as nearly as possible in conformity with the above rules. In cases of doubt as to form, contributors are referred to *A Manual of Style* published by the University of Chicago Press.

15. Contributors are entitled to receive twenty-five offprints free of charge, and may order as many as they wish in addition to be supplied at cost.

16. The name of the institution with which an author is connected will be printed at the end of his contribution; brackets will be used to denote that the author is a student at that institution.

COLLEGE ART ASSOCIATION OF AMERICA

HONORARY DIRECTORS

CHARLES R. MOREY
Princeton University

DAVID M. ROBINSON
Johns Hopkins University

PAUL J. SACHS
Harvard University

DIRECTORS

President

SUMNER MC K. CROSBY
Yale University

Vice-President

MYRTILLA AVERY
Wellesley College

Secretary

MILLARD MEISS
Columbia University

Treasurer

MARK EISNER
New York City

JOHN ALFORD
University of Toronto

ALFRED H. BARR, JR.
Museum of Modern Art

WALTER W. S. COOK
New York University

FREDERICH DEKNATEL
Harvard University

SIRARPIE DER NERSESSIAN
Wellesley College

DOUGLAS R. HANSEN
University of Missouri

MARION LAWRENCE
Barnard College

AMY WOLLER MC CLELLAND
University of Southern California

ULRICH MIDDELDORF
University of Chicago

REXFORD NEWCOMB
University of Illinois

ERWIN PANOFSKY
Institute for Advanced Study

ANDREW C. RITCHIE
Albright Art Gallery

FLORENCE H. ROBINSON
Sweet Briar College

E. BALDWIN SMITH
Princeton University

WOLFGANG STECHOW
Oberlin College